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Adopting a Systematic Approach to Tasting Cider within the Irish Craft Cider Industry

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***Adopting a Systematic Approach to Tasting Cider
within the Irish Craft Cider Industry***

A thesis submitted to Technological University Dublin in partial fulfilment of the requirements
for the award of Master of Arts in Gastronomy and Food Studies

by

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Technological University Dublin

School of Culinary Arts and Food Technology

May 2021

Declaration of Authorship

I certify that this thesis which I now submit for examination for the award of the Master's in Gastronomy and Food Studies is entirely my own work and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

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Abstract

Today, the history of cider in Gaelic Ireland, Georgian Ireland as well as modern Ireland is largely unrecognized. The Irish public have little knowledge of cider and view it as a cheap, simple, summer drink. However, cider is the third most popular alcoholic drink in Ireland after beer and wine. In a market dominated by industrial cider producers, craft cider-makers produce less than 1% of Irish cider, which is a much smaller percentage than craft producers in other beverage markets.

Describing the taste of a drink is difficult. Misalignments between people arise due to the limitations of language. Subsequently, people have developed lexicons, or subsets of languages, around certain beverages, such as wine and spirits. These lexicons help to increase shared understandings about those beverages. Within those lexicons, systematic approaches (structured and repeatable methods) to tasting and describing the taste of those beverages have also been developed. However, no systematic approach to tasting and describing the taste of cider has been adopted by the Irish cider industry.

This research is an exploratory investigation into the factors influencing the adoption of a systematic approach to tasting cider within the Irish craft cider industry. To examine the current thinking regarding the adoption of a systematic approach to tasting cider, seven interviews with craft cider-makers were performed and thematically analyzed. To facilitate these interviews, the researcher developed a systematic approach to tasting cider and shared this template approach with the interviewees in advance of the interviews.

The study identifies the scarcity of research into cider in Gaelic and Georgian Ireland. The possibility of the Gaelic word *nenadmin* referring to cider from wild crab apples is highlighted and the 1737 cider-making instructions of The Dublin Society, which emphasized the economic importance of cider in Georgian Ireland, is underscored. Subjectivity and the limitations of European languages which use source-descriptors to describe odours when describing taste are examined and considered in comparison to certain non-European languages which have established abstract words for odours. Wine is a similar beverage to cider and the researcher demonstrates that the systematic approach to tasting wine can play a positive role in the

development of a systematic approach to tasting cider. Thematic analysis identified four principle themes influencing the adoption of a systematic approach to tasting cider within the Irish craft cider industry – public perception, competitive disadvantages, constraints on diversification and difficulties describing cider.

Ireland's system of excise duty on alcohol in cider has a detrimental impact on the craft cider industry. Tiered by levels of alcohol, the system encourages cider-makers to dilute their ciders in order to reduce taxation. The resultant ciders share a 'sameness' of taste. Furthermore, only limited quantities of two varieties of cider-apple are available to most Irish craft cider-makers. Therefore, the majority of ciders are produced from similar recipes, reliant on a single eating-apple variety, and result in similarly tasting ciders. This re-enforces the public's perception of those ciders. Craft cider-makers feel competitively disadvantaged in comparison to beer against which cider has been positioned. Cider-making is a secondary commercial activity for many craft cider-makers and they are constrained by inexperience and lack of expertise from producing complex ciders. Some craft cider-makers acknowledged their difficulties in analyzing and identifying flavours in their own ciders.

No systematic approach to tasting and describing the taste of cider has been available for the craft cider-makers to adopt and the seven interviewees strongly welcomed the systematic approach created by the researcher. In 1737, The Dublin Society acknowledged the challenge of describing cider while underscoring the economic potential and market advantage of cider's diversity and broad variety of flavours. While this potential remains today, it is not being realized by the modern Irish craft cider industry. The researcher makes ten recommendations to support the growth of the Irish craft cider industry, the understanding of the development of lexicons generally and cider specifically as well as the adoption of a systematic approach to tasting cider and the reform of the tiered system of excise duty on alcohol in Irish cider.

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1 Chapter One: Introduction

1.1 Introduction

This dissertation is an exploratory investigation into the factors influencing the adoption of a systematic approach to tasting cider within the Irish craft cider industry. This chapter will provide a background and justification to the study and set out the aim, objectives and structure of the research.

1.2 Background to the Study

Cider has a long history in Ireland which is equivalent to the renowned north-western European cider producing countries (Cook, 2018, p.143). The apple tree was revered in Gaelic Ireland and featured in myths and legends. The Brehon Laws, the Gaelic legal system, classified wild apple-trees (*aball*) amongst the “lords of the wood” (*airig feda*) and imposed significant fines upon people who damaged them. In Georgian Ireland (1714 to 1830), the importance of cider to the Irish economy was recognized and promoted. Top quality Irish cider was highly regarded. The Irish cider-apple variety, the cackagee, had an international reputation and was exported to Europe and America. Cackagee cider was served to Queen Victoria’s household. Today, the history of Irish cider is largely unrecognized.

A sense of smell underlies the ability to taste. From the time of Aristotle to today, writers have highlighted the difficulties in describing smells and tastes. Language has been identified as a cause for those difficulties. The limitations of language impact our ability to communicate our experience of taste to others. Consequently, groups of people with specific interests in particular beverages, such as wine and spirits, have generically developed and adopted lexicons relating to those beverages. These lexicons, subsets of languages within languages, help to reduce miscommunications and misunderstandings between users of those lexicons. Systematic approaches (structured and repeatable methods) to tasting and describing those beverages within those lexicons have also been developed and adopted. However, there is no systematic approach to tasting and describing the taste cider which has been adopted by the Irish cider industry.

1.3 Justification for the Study

The Irish public have little knowledge of the history of Irish cider and hold Irish cider in low regard. Cider is viewed as a simple, uninteresting alcoholic beverage to be consumed with ice on a warm sunny day. Despite this, cider is the third most popular alcoholic drink in Ireland after beer and wine. The cider market is dominated by industrial cider producers, such as H.P. Bulmers and Heineken, with craft cider-makers producing less than 1% of Irish cider. This is a disproportionately small market segment in comparison to Irish craft beer which holds 3.4% of the Irish beer market. The adoption of a systematic approach to tasting cider by the Irish craft cider industry could help the industry to communicate to the public regarding the complexities of craft ciders, the range of available styles, grow the public's appreciation for craft cider and increase the size of the craft cider market.

1.4 The Aim and Objectives of this Research

Therefore, the aim of this research is:

- To identify the primary factors influencing the adoption of a systematic approach to tasting cider within the Irish craft cider industry.

In order to achieve this aim, a number of clear objectives are set out:

- To investigate Irish craft cider, past and present.
- To explore the difficulties in describing the taste of cider and similar beverages.
- To understand the role which systematic approaches to tasting beverages that are similar to cider, such as wine, can play in influencing approaches to tasting cider.
- To examine the current thinking among Irish craft cider-makers regarding the adoption of a systematic approach to tasting cider within the Irish craft cider industry.

1.5 Structure of the Study

The structure of this dissertation is as follows:

Chapter One: Introduction

Chapter One introduces this dissertation by providing an overview of the background and justification for the study and specifies the aim, objectives and structure of the work.

Chapter Two: Literature Review

Chapter Two is presented in two sections. The first section reviews the relevant academic literature and publications relating to Irish craft cider's history in Gaelic Ireland, Georgian Ireland and modern Ireland. The second section reviews the literature relevant to the limitations of language in describing the taste and the establishment of lexicons and systematic approaches to tasting cider and similar beverages, such as wine.

Chapter Three: Research Methodology

Chapter Three describes the research methodology used to conduct this study and the suitability of choosing the method of thematic analysis to identify themes within the qualitative data which was captured during semi-structured interviews with craft cider-makers.

Chapter Four: Presentation and Discussion of Results

Chapter Four presents the results of the research method. The steps undertaken to capture those results are described and presented through a number of graphic images. The interpretation and significance of the results are then discussed by the researcher.

Chapter Five: Conclusions and Recommendations

Chapter Five highlights the conclusions which the researcher has drawn through the completion of the research objectives. Ten recommendations as to where future research should be undertaken are proposed.

2 Chapter Two: Literature Review

2.1 Introduction

This chapter will provide an overview of the relevant academic literature and publications in two main sections. The first section focuses on Irish craft cider in Gaelic Ireland, Georgian Ireland and modern Ireland. The second section focuses on the limitations of language in describing taste and the establishment of lexicons and systematic approaches to tasting beverages of cider and similar beverages to address those limitations.

Within the first section, the esteemed position of apple trees in Gaelic Ireland (up to the late sixteenth century) will be highlighted in the Gaelic Brehon Laws. The possibility for the word ‘nenadmin’ to refer to a Gaelic cider made from wild crab apples and the differing opinions of authors relating to that word will be examined. The writings and cider-making instructions of The Dublin Society (1737) will identify the growing economic importance and regard for Irish cider during the Georgian period (1714 to 1830). The increasing development of cider orchards, the recognition of the quality of Irish cider and the international reputation of Irish cider apple varieties, specifically the cackagee, during that period will be presented. The disproportionately small market segment of craft cider within the modern Ireland cider market will then be examined.

The second section examines the literature relating to the challenges of describing the taste of cider and commences with a 1737 description by The Dublin Society relating of those difficulties. The limitations of language which lead to those difficulties will be identified and the establishment of lexicons and systematic approaches to tasting and describing the taste of beverages similar to cider, such as wine, to overcome those difficulties will be examined. The scarcity of research relating to the adoption of a lexicon and systematic approach to tasting cider will be highlighted.

2.2 Irish Craft Cider

2.2.1 Cider in Gaelic Ireland

Apples and cider have a long history in Ireland “equal to anything in northwest Europe” (Cook, 2018, p.143). Mesolithic hunter-gatherers were storing wild crab apples at Mount Sandel, Co.

Derry, nearly 9000 years ago (O’Sullivan, 1990). Apple trees, cut off at the trunk base, have been found positioned upright within the ancient monuments of the Boyne Valley, Co. Meath, which were built around 5,200 BC (Maggioni et al., 1997). Apple trees were of significance to these people. Apples also feature in Irish myths and legends, such as the tale of Echtrae Chonnali which tells of a young warrior, Connlac, who is unable to resist a supernatural woman who left him an otherworldly apple (McCone, 1990). Chief Macann, a Celtic leader who died in 1155, was reputedly associated with the strong cider produced from his orchards (Hennessy and Jensen, 2014, p.68) and St. Patrick, the patron saint of Ireland, is associated with planting apple trees near Armagh town (Mulvihill, 2018, p.134). Mac Con Iomaire (2014) re-iterates the long tradition of apples and orchards in Ireland and associated place names, particularly in counties Armagh, Wexford and Waterford and highlights locations such as Ballynahoulort, Co Kerry (from *Baile an Úlloird*, ‘the Orchard’), Oulart, Co. Wexford (from *An tAbhallort*, ‘the orchard’) and Cappaghnanool, Co. Galway (from *Ceapach na n-ubhal*, ‘plot of apples’).

The Brehon Laws, the Gaelic Irish legal system, are described in texts from between the seventh and ninth centuries AD. These laws survived, alongside Gaelic Ireland, until the end of the sixteenth century. The *Breha Comaithchesa*, ‘judgements of neighbourhood’, describes the laws relating to different classes of trees and shrubs and were based on the differing economic value of the trees and shrubs. Fergus Kelly (1999) described the top-ranking class of seven trees, the “lords of the wood” (*airig feda*), as including the wild apple-tree (*aball*). For any offence to a wild apple-tree, a culprit was fined (*díre*) the equivalent of two milch cows and a three-year-old heifer. Compensation (*aithrin*) was also required and varied according to the damage done. Significantly, compensation for the mere cutting off of an apple tree branch was a year-old heifer cow. As the variety of apple tree was important, the Brehon Laws also stated that, where required, replacement trees must be the same variety as a destroyed tree (p.43). Kelly furthermore describes the importance of apple trees as based on the economic value of their fruit and the potential for their bark to provide a dye for cloth.

Nonetheless, cider has not been highlighted as an important foodstuff in Gaelic Ireland. By contrast wine, beer and mead are mentioned in important works, such as the review of the 12th century

food satire *The Vision of Mac Conglinne* (Cross and Slover, 1996), the seminal examination of A.T. Lucas (1960) on Irish food before the arrival of the potato, Katherine Simms's examination of *Guesting and Feasting in Gaelic Ireland* (1978), Regina Sexton's examination of Irish food cultures before the famine (2015) and Mac Con Iomaire's proposal of Ireland's food and intangible cultural heritage (2018).

Cider was not emphasized in the songs or poems of Gaelic Ireland. However, the word "nenadmin" has been highlighted by Fergus Kelly, when referring to the sixteenth-century *O'Davoren's Glossary*, as possibly referring to a Gaelic cider made from wild crab apples and he describes the word as the "otherwise unattested Irish word *nenadmin*" (p.43). In *Early Irish Farming* (2000), Kelly further describes *nenadmin* as cider from "the delicate juice of wild apples - sugh caol na n-uball fiad" (p.261). However, Eugene O'Curry (1873, p.ccclxxviii) earlier claimed "the ancient Irish also made a kind of cider called *Nenadmin*, from the wild or crab apple... [which was] greatly prized". Verification for this claim is unclear. In 1908, Edward Emerson underlined the possibility of *nenadmin* as cider, as opposed to fact, when stating "*nenadmin*... was a kind of cider *said to be* made from the wild or crab-apple" (1908, p.313) [researcher's italics]. However, recent authors have reverted back to factually referring to *nenadmin* as wild apple cider, as opposed to the possibility of such. Susan Flavin (2014) specifically states "[a]pple cider, known in Old Irish as *nenadmin*, was drunk by the Gaelic Irish from ancient times" (2014, p. 179). In her earlier thesis, Flavin refers to *nenadmin* as "made from wild crab apples that grew in hedgerows and was therefore available to the lower classes. It is surprising, then, that it is not mentioned by any of the English commentators on Gaelic Irish diet" (2011, p.147). Caroline Hennessy and Kristin Jensen state, without ambiguity, that "the crab apple tree... was valued for its fruit too, not least for making an ancient kind of cider called *nenadmin*." (2014, p.67).

2.2.2 Cider in Georgian Ireland

The Georgian period in Ireland is associated with the start of the reign of King George I in 1714 to the death of George IV in 1830. In the preceding years the era of Gaelic Ireland had come to an end.

As Gaelic Ireland diminished, a growing presence of cider was acknowledged. In her book, *Consumption and Culture in Sixteenth-century Ireland: Saffron, Stockings and Silk* (2014), Susan Flavin examines the customs records of the port of Bristol and identifies that “[i]n April 1595, 2 tons of cider was shipped to Sligo by William Hopkins, a Bristol merchant and in May, approximately 168 gallons of cider was shipped to Waterford by a Kilkenny merchant, George St Leger” (p.178). Flavin identifies that this was unusual at the time as cider was not a popular drink until the mid-seventeenth century when it was “transformed from a poor countryman’s taste to a modish urban and upper-class drink” (p.179). Flavin dismisses these importations as being intended for soldiers stationed in Ireland as army records do not reflect these importations. Rather, Flavin suggests that “the cider was intended for elite consumption, which may suggest that the drinking was becoming modish” in Ireland. A growing commerciality of cider in Ireland was being recognized. Clarkson and Crawford reviewed William Molyneux’s examination of Irish farming practices in the early 1680s and his focus on the price of cider, including his description of “good cider being sold... for 30 s[hillings] the hoghead” (2001, p.16).

By the early Georgian Ireland period of 1737, *The Dublin Society’s Weekly Observations*, specifically recognized the economic importance of cider production when declaring that:

“Many of our correspondents have applied for the Society's Directions in making Cyder, which is become of late Years a Business of some Importance since the Consumption of that agreeable Liquor is considerably encreased already and everyday encreasing”

(The Dublin Society, 1737, p.147).

Founded in 1731, The Dublin Society was later described by Constantia Maxwell as “the most successful instrument of social and economic reform in Ireland in the eighteenth century was the Dublin Society” (Maxwell, 1949, p. 201). Aida Ramos describes the society’s primary purpose as “promot[ing] the economic development of the country through improvement in ‘husbandry, manufacturing, and the useful arts’” (2019, p. 433), yet identifies the lack of research into the society in the economic literature. Ramos highlights the weakness of the Irish economy which was under restrictive trade laws and the Irish Parliament in Dublin which was controlled by a dominant

United Kingdom Parliament in London. The society focused on improving the economy through “dedicated research, discussion, application, and dissemination of practices that generated economic growth and development” (p. 438). In *A History of The Royal Dublin Society*, Henry Berry highlights that “[f]rom its inception, The Dublin Society interested itself in cider and its manufacture, and succeeding pages will show how earnestly it strove to develop this branch of industry, as the climate and soil of the south of Ireland seemed most favourable to raising good cider apples” (1915, p.18). The economic significance of cider was recognized in Georgian Ireland.

In 1737, The Dublin Society published instructions for making cider. These instructions describe three quality levels of cider, produced from different apple varieties and methods. The lower level of cider was described as a “weak pert, windy Juice...scarcely deserves the Name of Cyder” made from sweet summer apples. The cider at the next level “yield[ed] a palatable Liquor... [with] too much sweetness” and was regarded as “the same Rank, which, among Wines, [as] is assigned to Canary [wines], and the other richer Kinds [of wines]” (p.152). Similar to the nenadmin cider (possibly) produced in Gaelic Ireland, top quality cider was produced from “wildings and harsh Winter Apples” (p.152). This cider is described as “leav[ing] a neat spirituous, and lively taste upon the palate” (p.153). Furthermore, The Dublin Society suggested that:

“to attain this should be the aim of all those who deal in cyder, and the harshest, roughest Kinds of Apples Afford the best Prospect of Success; their Juices require indeed to be kept a long time before they part their wild, raw and grating taste... become the neatest and the finest cyders. Of this kind, the Cackagee, Burlington Crab, Kendrick and the Royal Wilding are the best Fruits hitherto known in *Ireland*” (p.152) [original italics].

The high esteem for this top quality of cider, when compared with top quality wine, is seen in the comparison: “[i]n its highest Degree of Perfection this Cyder is not inferior to the Juice of Grapes, and seems to be bestowed by Nature... as a Full Equivalent” (p.149).

The Dublin Society saw the public's participation in producing cider as important and offered cider-related prizes. In 1749 and 1750, Martin Kennedy, Co. Galway and Edward Dally, King's County (County Offaly) won prizes for growing cider trees. In 1750, Robert Horan, Co. Limerick won the sum of £6 for the best cider (from cackagee apple variety) and in 1754 Lancelot Crosbie, Co. Kerry and Samuel Raymond, Co. Kerry won prizes for the best ciders.

Flavin's suggestion (2014, p.179) that cider began to become fashionable after the mid-seventeenth century is supported by Edward Wakefield's 1812 observation that "cider is the common beverage in gentleman's houses... it is confined chiefly to these, for the middling and lower classes seldom taste it" (1812, p.539). However, while Tara McConnell examined beer consumption in elite households in eighteenth-century Ireland and confirms that "beer and ale not only formed a necessary element of the daily nutritional intake of servants and workers, but also found a place of the sideboards of the privileged classes" (2014, p.178), her examination did not identify cider as similarly placed.

During the Georgian period, Irish cider-apples varieties had an international reputation - particularly the Cackagee winter variety whose name has numerous spellings and derives from the Irish 'cac a ghéidh' meaning goose poo. In 1752, Richard Pococke described Waterford as famous for cackagee cider (Stokes, 1891) and when visiting Ireland between 1776 and 1779, the eighteenth-century agronomist, Arthur Young (Woolaston Hutton, 1892), noted that "this country is famous for cyder-orchards, the cakagee especially, which is incomparably fine" (p.287). He identified "Limerick is famous for cyder; the finest cakagee is at Mr. Waller's" (p.385). In 1812, Edward Wakefield described "the cackagee cider of the county of Clare, [as] celebrated for its extraordinary flavour".

As early as 1727, the cackagee was exported and planted in Somerset, England, where its cider was described as "the colour of sherry and every whit as fine and clear.... It hath a more vinous taste than any cyder I ever drank... the taste might pass an incurious palate for the same liquor" (Langley, 1727, p.150). Subsequently, William Ellis states that the cackagee was increasingly being propagated in England, in areas such as Devonshire (1754). Later, the Horticultural Society described the cackagee as "one of the most esteemed old cider apples" (1842, p.10) in England

and Robert Hogg as “one of the oldest and best cider apples” (1859, p.57) which was even “supplied ... for the Queen’s Household” (1886, p.107). The cackagee was also exported to and planted in America where horticulturalist, Charles Downing described it, within *The Fruits and Fruit-Trees of America* (Downing and Downing, 1883) as “an Irish Apple, mostly valued for cider” (1883, p.129). Sales of the cackagee are seen in advertisements of a plant nursery, near Long Island (Prince, 1844). Unfortunately, the cackagee is subsequently feared to have gone extinct. Efforts are ongoing to verify potential survivors.

By the early nineteenth century, it appears that the economics of producing cider and cider orchards in Ireland began to fail. William Tighe noted in his observations on Co. Kilkenny from 1800 to 1801 that “[i]n the barony of Iverk are some orchards, where cider is made of an indifferent quality...in good years cider sells from 30s to two guineas a hogshead, but the produce is reckoned uncertain, which is perhaps the reason that scarce any new orchards are planted” (1802, p.584). Similarly, Wakefield stated, referring to Tighe observations, “[i]t appears by my own journal, that the case is the same in Clare” (1812, p.539). By 1824, the *Encyclopedia Britannica*, when acknowledging “cyder [of] a very fine quality” from County Clare, stated that it did “not appear, from the latest accounts, that any considerable quantity of this cyder is now produced”. By 1845, the *Parliamentary Gazetteer of Ireland* stated that in County Clare’s “cyder orchards... seem to have fallen into disrepute” (p.403).

By the late Georgian Ireland period, cider was falling out of fashion. When examining alcohol consumption in Ireland during this period, James Kelly states that “beer and cider were normally consumed by servants” (2015, p.239). Internationally, changes in cider consumption were taking place. In her description of English cider drinking habits in the eighteenth century, Caryn E. Neumann (Blocker et al., 2003) states that “the English thirst for cider had become unquenchable, and that this demand combined with industrialization to destroy the beverage’s market. Homemade farm cider...did not transport well...Cider factories consequently sprang up, and the quality began to drop... Cider became associated with drinking to get drunk. Anyone who could afford to purchase a healthy drink chose ale” (p.160).

2.2.3 Craft cider in modern Ireland

The Great Famine (An Gorta Mór) suffered in Ireland from 1845 to 1852 saw the devastation of the farm-based cider industry. Until the mid-twentieth century, only limited cider making took place on the island with apple presses and crushing machines being transported from farm to farm (Hennessy and Jenson, 2014, p.71). By the mid-twentieth century, Cider Ireland, the trade association for Irish craft cider-makers, describe how “the few remaining crushers and presses no longer travelled but were in fixed locations and farmers had to transport their crop to them for processing which meant it was no longer an attractive proposition” (2012). When describing Irish cider making, Darina Allen recalls “Dick Keating... tell[ing] me that the practice of making cider on farms persisted in some places right up until the late 1940s” (2009, p.466). Industrial cider-making began in Ireland in 1935 with William Magner’s cidery in Clonmel, Co. Tipperary which H.P. Bulmers Ltd took over in 1946 and subsequently grew the company into the largest cider-making business in the world.

The 2019 market report on Irish cider published by Drinks Ireland | Cider, identifies that cider (including perry made from pears) is Ireland’s “third most popular alcohol beverage behind beer and wine, once the spirits category is split into its different variants (such as whiskey, vodka and gin)” (2019, p.2). Cider holds approximately 7.4% of the Irish drinks market. 63 million litres of cider are consumed in Ireland annually, of which 80% is produced on the island. The value of the export market is stated as approximately €65 million, of which 90% is exported to the United Kingdom. The excise on cider in Ireland is the highest in the European Union (European Commission, 2020; Drinks Ireland | Cider, 2019) and is graduated based on the percentage of alcohol (The Office of the Revenue Commissioners, 2020). Drinks Ireland | Cider states that approximately 29% of the price of a pint of cider in an Irish bar is excise duty or value-added taxation. In early 2021, the Irish rate of excise duty on cider ranged from €47.23 per hectolitre of cider below 2.8% alcohol by volume (a.b.v.), up to €619.70 per hectolitre of sparkling cider above 8.5% a.b.v. By comparison, any Irish beer exceeding 2.8% a.b.v. is only subject to €22.55 per hectolitre - a potential factor difference of 27 times per hectolitre.

Within the Irish market, H.P. Bulmers, maintains over 60% of market share, followed by Heineken’s Orchard Thieves (Euromonitor International, 2020). Industrial cider dominates. Craft

cider accounts for less than 1% of the Irish cider market which is a disproportionately small percentage of the Irish cider market. In comparison, Irish craft beer holds 3.7% of the Irish beer market (Bord Bia, 2020). Cider Ireland is the trade association for small, independent and traditional cider-makers and currently has a membership of fourteen producers. The association regards craft cider as cider fully made (grown, crushed, pressed, fermented and bottled) on the island, using real apple juice (not concentrate) from 100% Irish-grown apples. By contrast, industrial cider must contain a minimum of only 35% (fermented) apple juice, allowing the remainder 65% to be constituted of water in the U.K. (Kline and Cole, 2017, p.42).

Across Europe, a number of geographical indications and protections have been granted to traditional cider industries (European Commission, 2021) including in France (Cidre du Perche, Cidre Cotentin, Cidre de Bretagne, Cidre de Normandie and Calvados), in Spain (Sidra de Asturias and Euskal Sagardoa) and in Germany (Hessischer Apfelwein). The United Kingdom had five cider appellations recognized during membership the European Union (Gloucestershire, Herefordshire, Worcestershire and traditional Welsh ciders as well as Somerset cider brandy). Ireland's cider industry has no such appellation registered.

2.3 The Challenges of Describing the Taste of Cider

2.3.1 The Challenges of Describing Taste

As early as 1737, *The Dublin Society's Weekly Observations* recognized the difficulty in describing the varying tastes, varieties and styles of cider:

“...’tis a hard matter to describe to the Palate, and set the Rules to Taste; and therefore the endless Variety of different Flavours to be found in different Kinds of Cyder may be just reckon’d an Advantage; every Apple has its peculiar Relish, and affords a distinct Juice, strictly and properly its own, tho’ included in the common name of Cyder; which therefore under one general Appellation contains something for every Palate, and leaves Room for the Wantonness of Taste and Fancy” (The Dublin Society, 1737, p.149).

Language is limited when describing sensory perceptions and experiences (Caballero and Paradis, 2015) and the associated difficulty in describing aromas which people smell has long been

acknowledged. Smells cannot be held nor seen and the sources of smells are often difficult to locate. In *Aristotle on the Sense of Smell*, Thomas Johansen highlights Aristotle's warning that "[i]t is less easy to give a definition concerning the sense of smell and what can be smelt... [f]or it is not clear what sort of quality odour is" (1996, p.1). Darwin considered that, for humans, "the sense of smell is of extremely slight service" (1871, p.23) and as Annick Le Guérer (2002) describes, Henning declared that "olfactory abstraction is impossible" (1916, p.66). Indeed, Immanuel Kant noted in 1798 on a manuscript that "smell does not allow itself to be described, but only compared through similarity with another sense" (Kant, Zöller and Loudon, 2014, p.270). Other recent writers have also examined the weakness of language regarding sensory vocabularies (Paradis, 2005; Burenhult and Majid, 2011). Paradis and Eeg-Olofsson (2013) examined how sensory perceptions are described in text during wine reviews and recognized the "paucity of words only designated for descriptions of... smell in the English language" (p.17).

Within the English language, smell descriptors are overwhelmingly source-descriptors (Kaepler and Mueller, 2013) - such as the 'smell of a lemon' or the 'smell of roses'. This limitation may relate primarily to the languages of western, industrialized and rich countries. Wnuk and Asifa (2014) identified that the Maniq hunter-gatherers of Southern-Thailand have a rich smell-specific lexicon - words not relating to the source of the smell (in contrast to English), but rather to the smell itself. Majid *et al.* (2018) have subsequently compared the Dutch language and the language of the Jahai hunter-gatherers of the Malai Peninsula. Dutch was also found, like English, to refer to odour sources while the Jahai used specific abstract words for odours.

2.3.2 Systematic Approaches to Tasting Wine and Similar Beverages

The difficulty in describing the taste of wine, a similar beverage to cider, has been examined in greater detail than other beverages. In 1983, the world-renowned wine consultant, Émile Peynaud identified language at the core of the difficulty in describing the taste experience stating:

"When trying to talk about wine in depth, one comes up against the limitations of our means of expression, against the barrier of the inexpressible. We need to be able to describe the indescribable. We tasters feel to some extent betrayed by language" (1987, p.211).

In *The Objectivity of Tastes and Tasting*, Barry Smith recognized the insufficiency of language in “capturing the indefinable quality of our experiences in words” (2007, p.43). While Michael Broadbent’ stated that “to talk about, let alone claim, total objectivity... in tasting is nonsense” (2003, p.95), Smith argued for a middle ground between subjectivity and objectivity by distinguishing the subjective experience of tasting wine and the objective tastes within that wine. Subsequently, Cain Todd declared that “subjectivity’ and ‘objectivity’ are extremely slippery notions, not merely in everyday usage, but also in philosophical parlance” (2011, p.77). Kent Bach, when comparing sunsets, faces, foot massages and roller coaster rides to wine tasting, asked whether “words somehow enhance our ability to experience any of these to [the] fullest?” (2008, p.100).

The Oxford Companion to Wine identifies that a language within a language is appearing to describe wine: “wine descriptions are in their linguistic infancy, parallel to the days when linguistic sound could be described only by comparison to other sounds” (Robinson and Harding, 2015, p.409). Lehrer (2009) argues that usage and debate helps to expand this ‘wine language’ and Burton and Flewellen regard this language as “by far the best tool at our disposal for communicating our experiences to others and, indeed, to ourselves” (2014, p.38).

In 1984, researchers from the University of California proposed a list of standardized wine aroma terminology, whose main function was the “facilitation of communication amongst wine-makers, marketing personnel, wine researches and wine writers, as well as consumers” (Noble *et al.*, 1984, p. 107). The terminology for these aromas were presented hierarchically within the diagrammatic Wine Aroma Wheel. This approach eliminated subjective and hedonic terms - such as ‘good’ or ‘bad’. However, as only the aromas were addressed, the structural elements of wine, such as acidity, tannin, sweetness, alcohol as well as the quantitative measurement of those structural elements, were excluded.

In 1987, David Bird M.W. and Maggie McNie M.W. created a systematic (structured and repeatable) approach to tasting wine. As well as proposing specific terms for aromas and flavours,

this approach also addressed the structural elements of the wine (such as acidity, sweetness, tannin, body, intensity and alcohol level, alongside a set of scaled measurement terms for each (low, medium, high). “[S]tep-by-step, it becomes much simpler to examine each aspect of the structure of the wine, in turn, in the same order every time” (Bird, 2000, p.265). *The Oxford Companion to Wine* regards the specification of an agreed lexicon, utilized by the systematic approach to wine tasting, as representing “a learnt culture of wine.... The discipline of putting sense impressions into words is indispensable” (Robinson and Harding, 2015, p.728). Subsequently, the Wine and Spirits Education Trust (WSET) has mandated this systematic approach to tasting (SAT) for its diploma students (WSET, 2019a). Similar systematic approaches to tasting have been adopted by the WSET for other alcoholic beverages including sake (WSET, 2017) and spirits (WSET, 2019b) such as whiskey.

2.3.3 The Lack of an Established Cider Lexicon and a Systematic Approach to Tasting

As Noble *et al.* recognized (1984, p. 108), flavour terminologies have been developed for cider, perry, whiskey and beer. In 1975, Anthony A. Williams of the Long Ashton Research Station, Bristol, recognized that “the general need to be able to record and communicate information on the flavour of beverages makes the development of a meaningful language essential. All terms used in such a language must be universally understandable and accurately defined, preferably in terms of readily available standards” (1975, p. 567). Ciders, he stated, “are very complex and extremely varied in aroma character, ranging from that more often associated with delicate wines, right through to more coarse aromas associated with farmhouse draft cider” (p.569). Williams and his team proposed both a quantitative and qualitative approach to cider aromas. Approximately 50 odour terms were incorporated as adjectives - ‘like raisins; like honey’. The chemical composition of the ciders, identified by gas chromatographic analysis, were compared against the human results. Williams recognized that “[t]he language and assessment procedure outlined is relatively complex, but aroma and f[l]avour are complex sensations and...require[] a complex method of appraisal” (p.581). The complexity of Williams’ cider lexicon and aroma evaluation approach restricted its widespread adoption. Subsequently, other lexicons have been proposed including a ‘head-heart-base’ aroma evaluation technique for both wine and cider (Sommer *et al.*, 2018) and a ‘check-all-that-apply’ aroma and flavours sensory lexicon (Phetxumphou *et al.*, 2020). Again, these lexicons are similar to the aroma wheel approach, in that they are restricted to aromas and

flavours and exclude the structural elements of cider. They are “well suited for unexperienced panelists and offers easy access to sensory profiling... and [for] experts [to] identify and evaluate different levels of sensory perception that are difficult to describe with other methods” (Sommer *et al.*, 2018, p. 217).

Authors on cider have also proposed a number of tasting approaches. Simon McKie recognizes the established methods of tasting wine. “Taste is a fugitive quality, difficult to define...whereas well-developed methodologies for tasting wine and describing its taste are widely used, methodologies for tasting and describing cider are not” (2014, p. 70). His approach is based on assessing the cider’s colour, nose and taste, assigning the cider into seven high-level styles and providing a score rating from 1 to 10. Aromatics are assigned into eleven high-level categories of “nuances”, including “fresh fruits” and “food products” (p.98). Lower-level aromatic details are not provided. A scaled measurement of the intensity of the overall aroma is provided. Similarly, scaled measurements are given for eight specified structural elements within the palate: sweetness, acidity, tannin, alcohol content, flavour, body, length and balance.

Brown and Bradshaw (2013) propose a light-hearted five-step guide to tasting cider. They present cider on a three-axis structure of sweetness, acidity and tannin. Each axis has a 5-point scaled rating. Scoring along these axes and shading the area between those scores results in shapes which Brown and Bradshaw use to describe the structure of various styles of cider such as keeved, traditional farmhouse, ice cider and typical commercial brand ciders. However, they also describe sweetness, acidity and tannin as primary flavours rather than purely structural elements. Consequently, Brown and Bradshaw are then required to describe items such as fruit and floral as “[s]econdary [f]lavours” (p.32), rather than primary flavours. They provide neither a formal collection of aroma terms nor an aroma wheel. In contrast, Hennessy and Jensen state that “evaluating cider is very similar to the way your approach beer, with the same factors coming into play - appearance, aroma and texture” (2014, p.82) and provide 133 positive flavour and aroma terms to describe beer (p. 54).

Ben Watson proposes another informal approach which does not detail or mandate addressing the individual components within the structure of cider. A resultant tasting description may simply

read as “refreshing; very attractive colo[u]r; lacks astringency...5” (2013, p. 119). Watson believes that a vocabulary for cider has been negatively influenced by perceptions of the wine industry: “[w]ine connoisseurs have their own vocabulary for describing various vintages and styles... Cider tasters have a similar shared vocabulary, though it tends to be much more basic and a lot less highfalutin than that used by wine fanciers” (p. 118). Erin James, in her book *Tasting Cider* (2017), specifically looks to avoid proposing a tasting methodology, despite the title of her book, and proposes that “[d]escribing cider beyond its inherent apple aromas and flavours can be cumbersome and not always necessary. You like it? Great, drink it... cider falls in line with wine and beer as far as understanding and appreciating the beverage” (p.16). James also advises “avoiding the hot-button term ‘style’” (p.31), yet promotes 11 ‘variations’ of cider in North America. Andrew Lea’s book *Craft Cider Making* (2015) provides neither a tasting methodology nor an aroma wheel.

The American Cider Association launched the Cider Lexicon Project (2019) to support the development of a cider lexicon in America. They also administer a certified cider professional programme (2019b) within which they provide a draft worksheet for a structured sensory analysis (2019c) of ciders. The proposed approach is similar to the systematic approaches (structured and repeatable methods) provided by the WSET for tasting wine, sake and spirits. However, it is much smaller in comparison to the WSET approach to wine. Only 15 clusters of aromas and flavours are identified, containing 72 specific flavours. The association describes a 5-bullet-point consumer-focused approach to describing cider (acidity, carbonation, body, tastes like (sweetness), tannin and flavour notes) and includes reference to four flavour wheels. No approach to tasting cider has been proposed by the WSET as cider is currently outside the remit of their educational scope.

Tozer *et al.* (2015), when examining consumers’ willingness to pay for craft cider, identified that “consumer knowledge of cider and their preferences for sensory characteristics, including taste, is limited... As with all beverages, consumers vary in their preferences and it may be difficult for them to decide upon a cider” (p. 315). They emphasized the fundamental challenge to the American cider industry as the lack of an agreed lexicon and definitions of cider styles:

“Given that there are no well-defined standards to categorize cider styles, such as there are for wines, consumers are faced with a difficult task of making a cider purchase based on inconsistent information on the product label” (p.315).

Furthermore, during their research, they were unable to provide study participants with a definition of craft cider due to the lack of industry agreement: “subjects were provided with a definition of craft cider. The definition was not complete, but included terms such as orchard or farm-based, small-scale independent producers, and milder made with local cider apple juice, containing natural colo[u]rs, flavo[u]rs and aromas” (p. 316).

Fabien-Ouellet and Conner (2017) highlighted an identity crisis in the American hard (alcoholic) cider because the industry lacks clear and cohesive definitions of cider and cider styles; rather products “oscillate between the borrowed identities of beer and wine...[which] prevents the U.S. hard cider industry from maturing”. The American Cider Association was previously called The United States Association of Cider Makers and their 2017-2020 Strategic Plan declared that in order to obtain their number one goal of growing demand for all styles of cider, they needed to:

“Establish a nationally-recogni[s]ed consumer-focused cider lexicon with the explicit goal of helping consumer of differing cider knowledge identify cider styles and products they are most likely to enjoy” (United States Association of Cider Makers, 2017, p. 8).

Gabe Cook, the internationally renowned cider expert, declares that “one of the challenges with cider is there isn’t a particularly developed lexicon, language, stylisation associated with the category.” (2020). Furthermore, he recognizes that “just because the UK lost virtually all knowledge of its cider lexicon and styles, it doesn’t mean that everybody did the same” (2018, p. 108) and highlights European regional cider appellation systems. Supporting the arguments of Fabien-Ouellet and Conner (2017) and the American Cider Association (2019), Cook identifies the lack of a cider lexicon as undermining efforts to recognize regional cider styles, obtain appellation-type protections, promote cider to consumers and grow the cider industry. He lauds the efforts currently being made by the American Cider Association and views the challenge to cider as a global one. He states that “[i]n order for any kind of style classification to be viable, it

has to work on the global scale” (p. 109) and regards current efforts as the beginning of the conversation about a cider lexicon and styles.

There is a scarcity of research into systematic approaches to tasting cider and no systematic approach for tasting cider has yet been adopted by the cider industry.

2.4 Conclusion

Cider has a long history in Ireland. Apples and apple trees were given esteemed positions in Gaelic myths and legends. The Brehon Laws, the Gaelic legal system, classified wild apple-trees (*aball*) amongst the “lords of the wood” (*airig feda*) and imposed significant fines upon those who damaged them. This legal protection was based on the economic value of the trees. The word ‘nenadmin’ possibly refers to a Gaelic cider made from wild crab apples but this remains to be verified. In Georgian Ireland, top quality Irish cider was regarded by The Dublin Society as “bestowed by Nature... as a Full Equivalent” (1737, p.149) to wine. In a weak Irish economy under restrictive trade laws and under a Dublin Parliament controlled by and to the benefit of the London Parliament, cider was identified as of significant economic importance to generate economic growth and development for Ireland. The Dublin Society declared that “making Cyder... is become of late Years a Business of some Importance” (p.147). The Irish cider-apple variety, the cackagee, had an international reputation and cackagee cider was served to Queen Victoria’s household. Following The Great Famine (An Gorta Mór) the Irish cider industry was devastated until the mid-twentieth century and the establishment of Bulmers Ltd. By 2019, cider was the third most popular alcoholic beverage in Ireland but craft cider holds a disproportionately small segment of less than 1% within the cider market.

When The Dublin Society declared in 1737 that “...’tis a hard matter to describe to the Palate” (p. 149) the taste of cider, they were re-iterating the difficulties in describing taste and smell which other writers, from Aristotle to the modern day, have declared. Language is limited when describing sensory perceptions and experiences which impact our ability to communicate taste experiences due to issues of subjectivity by the describer and objective interpretation by the listener or reader. Potentially, these limitations are not encountered in non-European languages which have rich smell-specific lexicons rather than source-descriptors of European languages. The

difficulties in describing taste have been examined in greater detail in wine, a similar beverage to cider. A specific wine lexicon, an agreed language within a language, and systematic approach to tasting wine has been developed and being adopted by much of the wine industry. These represent the learnt culture of wine. There is a scarcity of research relating to the adoption of a cider lexicon and a systematic approach to tasting. While various methods of tasting cider have been proposed, no systematic approach to tasting cider has yet been adopted by the cider industry. The aim of this research is to understand the primary factors influencing the adoption of a systematic approach to tasting cider within the Irish craft cider industry.

3 Chapter Three: Research Methodology

3.1 Introduction

The previous chapter identified the lack of an adopted systematic approach to tasting cider, within the cider industry. This chapter will outline the research methodology which was undertaken to achieve the aim of identifying the primary factors influencing the adoption of a systematic approach to tasting cider within the Irish craft cider industry. The suitability of using qualitative data captured through semi-structured interviews to reflect the experiences and perceptions of Irish craft cider-makers will be examined. The application of a deductive top-down coding perspective of the thematic analysis method to identify themes within the data will be detailed. The development of a systematic approach to tasting cider created by the researcher and used during interviews to facilitate in-depth discussions will also be described.

3.2 Research Methodology

3.2.1 Qualitative Data

Data collection is a systematic process of gathering observations and measurements in order to gain insights into research objectives and problems. While quantitative data relates to numeric measurements, qualitative data relates to the expression of words and observations and is used to understand people's experiences of the world, opinions and concepts. It is "intended to generate knowledge actually grounded in human experience" (Sandelowski, 2004, p. 1368). The objective of this research is to understand the experiences of Irish craft cider-makers relating to the adoption of a systematic approach for tasting cider. The capture and analysis of qualitative data was therefore deemed appropriate to this research.

3.2.2 Interviews

Methods used by researchers to collect qualitative data include interviews, observations, surveys and secondary research. Seidman argued that interviews can offer a better understanding of the subject being examined and the potential "to share that understanding as a possible contribution to the field and those affected by it" (2006, p.70). Some researchers argue that interviewers should be experts on topics before commencing interviews (Kvale, 1996, p.147). While the researcher is not an expert in cider, he has a specific interest and experience in the systematic approaches to

tasting wine and spirits. In 2017, he achieved the WSET's flagship qualification of the Level 4 Diploma in Wine and Spirits. An in-depth knowledge and understanding of wines and spirits, their global industries and systematic approaches to tasting those beverages is required to achieve this qualification.

The qualitative data used in this research was captured in semi-structured interviews with Irish craft cider-makers. Cider Ireland is the trade association for small, independent and traditional craft cider-makers (100% grown, crushed, pressed, fermented and bottled) on the island of Ireland and currently has a registered membership of fourteen. When contacted by the researcher, seven of the fourteen craft cider-makers from Cider Ireland volunteered to participate in interviews. Experts are considered knowledgeable of a particular subject and are identified by virtue of their specific knowledge. The researcher therefore considers these interviewees to be experts in craft cider-making and capable of providing expert contributions to the research subject (Meuser *et al.*, 2009).

Interviews, totalling approximately 7 hours, took place between 11th September 2020 and 24th February 2021. The researcher felt the quantity of data provides sufficient materials for analysis purposes. A list of interview questions and a templated systematic approach to tasting cider, created by the researcher, were provided to each interviewee in advance of the interviews. This allowed the interviewees to give appropriate consideration to each question in advance. The majority of the questions were open-ended and intended to invite detailed responses. Where appropriate, follow-on questions were asked to elicit further details from the interviewees. Initial considerations for this research included the concept of enhancing the co-created experiences of visitors to cideries, using a templated systematic approach to tasting cider. For consistency throughout all interviews, questions relating to that concept remained on the list of interview questions. The full list of interviews questions and the researcher's systematic approach to tasting cider are attached in the appendix. A participation consent form, also attached in the appendix, was provided and confirmed by each interviewee and permission obtained for interviews to be recorded and transcribed as part of this research. To encourage openness and a deeper level of response from the interviewees, it was agreed that interviewees would not be readily identifiable within the transcripts.

All interviews were digitally recorded on an iPhone 6s, using either the pre-installed Voice Memos application or the Otter application which was purchased and installed onto the researcher's phone. These recordings have been electronically saved for future purposes. The durations of the interviews range from forty-five minutes to one hour, thirty minutes. Where the interviews were interrupted, either due to a technical issue, human interruption or break, the recording was split into multiple electronic sections with interruptions noted. Where necessary, additional interviews were performed and appropriately noted.

Initially interviews were transcribed to text manually. Subsequently, the researcher used the Otter application to perform initial transcriptions and replayed the recordings to review and correct the transcripts. All interview recordings were replayed several times to ensure the accuracy of the texts and proofread several times. Intelligent verbatim transcription was used to improve readability. All transcribed interviews are available in the appendix.

The dates, times and locations of all interviews were captured. Initially, it was intended that all interviews would be held in the physical presence of the interviewees so as to put the interviewees at ease, encourage discussion and promote a greater quality of interview. However, due to Covid-19 travel restrictions and safety guidelines, only the two initial interviews were held in the physical presence of the interviewees. All other interviews were held remotely using Zoom meeting facilitation technology.

A preparatory interview was undertaken in person with a cider-focused representative from Bord Bia, the Irish state's food promotion agency. The researcher also interviewed two members of the American Cider Association, an English cider-maker, a Norwegian cider association representative and the renowned author on cider, Gabe Cook. These interviews were informative to the researcher but did not form part of the data analyzed by the researcher.

3.2.3 Thematic Analysis

Researchers must provide a clear description of analysis methods which they utilize (Braun and Clarke, 2006). This research utilized the thematic analysis of qualitative data, captured during semi-structured interviews, to identify patterns and themes relating to the research objective.

Braun and Clarke described thematic analysis as a distinctive and fundamental method of qualitative analysis, rather than a mere process which assisted analysis methodologies. Additionally, they described the method as a “core skill... useful for conducting many other kinds of analysis” (2006, p.78) which should be the first qualitative method learnt by researchers. They initially provided a six-step framework to assist researchers in its application. As a method, rather than a methodology, thematic analysis is very flexible as it is not tied to particular epistemological or theoretical perspective. Later Clarke and Braun (2013) recognized the continued and growing need for clear guidance on the practicalities of qualitative research. The importance of rigour in the application of analysis was underlined by Nowell *et al.* (2017, p.1) when they stated that “to be accepted as trustworthy, qualitative researchers must demonstrate that data analysis has been conducted in a precise, consistent, and exhaustive manner through recording, systematizing, and disclosing the methods of analysis with enough detail to enable the reader to determine whether the process is credible”.

“A good thematic analysis interprets [data] and makes sense of it” (Maguire and Delahunt, 2017, p. 3353) to identify patterns and themes within the data. Flexibility relies upon the subjective interpretation and judgement of the researcher to reliably identify themes. Having obtained the WSET’s flagship qualification of the Level 4 Diploma in Wine and Spirit, the researcher is an expert on the systematic tasting of wine and spirits and has an in-depth knowledge and understanding of wines, spirits and their global industries. The researcher applied this knowledge in his identification of themes within the data and applied his interpretation of those themes. Therefore, a deductive top-down coding perspective (rather than an inductive data-driven bottom-up perspective) was applied to the thematic analysis of the qualitative data and interpretation was attempted to theorize the significance and broader meaning of those themes (Patton, 1990). As the data set was captured across a specific expert group of commercial craft cider-makers with existing industry expertise, rather than hobbyists or the general public, contextual analysis and critical

realism were applied when identifying themes - “sitting between the poles of essentialism and constructionism” (Braun and Clarke, 2006, p.9).

The initial six-step framework was further expanded by Braun and Clarke (2013) into a seven-step framework and includes the following steps - transcription, data familiarization, initial code generation, creation of themes, reviewing themes, defining themes and writing up. The activities around transcription were described earlier in this chapter. Data familiarization involved reading and re-reading these transcripts until the researcher was familiar with the data corpus. This step was completed before progressing. The third step addressed the initial generation of codes which involved highlighting sections of text (initially on the Apple Pages desktop application and then in the Apple Numbers desktop application) and applying short-hand codes to represent those sections. Each code was intended to describe an idea or feeling associated with the relevant text. As the number of codes increased as the analysis of the transcripts progressed, sections of transcript were found to be already represented by existing codes. Having completed initial coding of the transcripts, the transcript sections were grouped together by the various codes, providing a condensed overview of the codes. The next step within the framework process was the creation of themes which involved reviewing codes, identifying patterns across those codes and combining them under a theme. Vague and irrelevant codes were discarded. As themes were reviewed, a definition for each was clarified and an appropriately succinct and understandable name applied. Finally, the results of thematic analysis of the qualitative data was written up and discussed within the Chapter 4.

3.3 Creating a Systematic Approach to Tasting Cider

In order to delve into the research objectives and facilitate interviews, the researcher created and documented a systematic approach to tasting cider, which is attached in the appendix. The process involved the analysis of the common flavours and structural components between wine and cider, the WSET’s systematic approach to tasting cider, the American Cider Association’s structured sensory analysis worksheet as well as the additional available literature on cider tasting methodologies described in the previous chapter.

3.4 Conclusion

This chapter has outlined the research methodology which was undertaken to address the research objectives relating to identifying the primary factors influencing the adoption of a systematic approach to tasting cider within the Irish craft cider industry. Qualitative data reflecting the experiences and observations of small, independent and traditional Irish craft cider-makers was captured through semi-structured interviews. The method of thematic analysis was considered appropriate and suitable by the researcher. A clear description of the application of this method, using a seven-step framework as described by Braun and Clarke (2013) was provided. A deductive top-down coding perspective was applied, with the researcher applying interpretation based on his existing interest in and knowledge of systematic approaches to tasting other beverages. The next chapter examines the analysis of the data and discusses the themes which were identified through the thematic analysis.

4 Chapter Four: Presentation and Discussion of Results

4.1 Introduction

The previous chapter described the methodology which was utilized by the researcher. This chapter will present the thematic analysis of that data and discuss the themes which arose.

4.2 Thematically Analysing the Data

The qualitative data analyzed by the researcher was captured through semi-structured interviews, all digitally recorded, with seven Irish craft cider-makers, totalling six hours and forty-three minutes. For reasons of privacy, the interviewees have been named Interviewee_1 through to Interviewee_7. As the data was analyzed with the specific research question in mind, this was an application of theoretical thematic analysis rather than an inductive application. Following the seven-step framework to thematic analysis described by Braun and Clarke (2013), the interviews were transcribed and the researcher became familiar with the text. All interview transcripts are provided in Appendix H. The researcher then reviewed the transcript texts to identify codes which initially arose from the texts. The identification of codes from texts within the transcripts is attached in Appendix D. Some examples are shown in Figure 1 on the next page.

Interviewee	Quote	Initial Code
Interviewee_1	The public's perception of style of cider in Ireland is very poor to start out with. They don't understand cider as a unique product of its own.	Public's Lack of Cider Knowledge.
Interviewee_1	suffer from what I call the Bulmers' effect.	Bulmers' Dominance.
Interviewee_1	The level of knowledge doesn't exist.	Public's Lack of Cider Knowledge.
Interviewee_1	drink in Summer and that perception of cider still remains today.	Summer Drink. Public's Perception.
Interviewee_1	The manufactured [cider industry] are now starting to get over the summer-only effect.	Industrial Cider. Summer Drink.
Interviewee_1	Hot summers day, that's the perception at the minute	Summer Drink. Public's Perception.
Interviewee_1	Yeah, that comes down to the point of educating the consumer. It's trying to educate the consumer to marry styles or ciders of different styles with food. it's about educating the consumer to marry the style of cider with the food.	Educating the Public. Broadening the Cider Market. Food Pairings. Cider can be Complex.
Interviewee_1	I firmly believe that our cider making knowledge is very poor.	Producers' Lack of Knowledge.
Interviewee_1	we haven't been proactive enough in developing a wide enough range for the consumer to try out but married to that is the educational side.	Lack of Proactivity. Efforts to Broaden Range of Styles. Educating the Public. Broadening the Cider Market.
Interviewee_1	The consumer doesn't know what to do with it, once they get it. Craft is definitely struggling on that one. Yeah.	Public's Lack of Cider Knowledge. Food Pairings. Challenge.

Figure 1: Example of initial identification of codes from interview transcripts

A relatively high number of 248 codes were identified across the approximately 55,000 words of transcripts. These codes were collected together and the full list of those initial codes is available in Appendix E. A sample range of codes is shown in Figure 2 on the next page.

Initial Codes					
Ability to Describe Taste.	Cost of Production.	Few Craft Producers.	Lack of Specialized Cider.	Produced like Beer.	Weakness of Craft Producers.
Adding Ingredients to Cider.	Covid.	Few Specialized Craft Producers.	Lack of Standardization.	Producer awareness.	White wine.
Additional Duty on Flavoured Cider.	Craft Cider Movement.	Few Specialized Growers.	Lack of Structured Approach to Tasting.	Producers Not Relying on Taste.	Working with Public.
Advantages of Beer.	Craft Industry Working Together.	Flavoured Water.	Lack of Tools.	Producers Preferring Technical Details.	
Agreeing Lexicon.	Craft Producer Fear.	Frustration.	Lack of Transparency.	Producers' Lack of Expertise.	
American Controversy.	Creating an Irish Style.	Giving Confidence.	Lack of Understanding.	Producing Different Styles.	
Aspirations.	Creating limitations.	Grouped with Beer.	Larger Market.	Production Methods.	
Assessing and Comparing.	Creating Universal Terms.	Growing Expertise and Experience.	Legitimizing Craft Cider.	Production Practices.	
Avoiding coupling to apple varieties or style.	Creative Efforts.	Guidance and Education.	Lexicon defining Irish Style (assumed).	Professionalism.	
Avoiding Political Conflicts.	Creative Thinking.	High Quality Cider.	Little focus on higher quality.	Public Expectations.	
Avoiding Wine Snobbery.	Critical Need.	High Value Product.	Little focus on Irish uniqueness.	Public Perception.	
Barriers.	Cultural Misunderstanding.	Immaturity of Irish Craft Industry.	Lobby Power.	Public's Lack of Cider Knowledge.	
Beer Advantage.	Damaging the Craft Market.	Immaturity of Irish Craft Market.	Lost Cider Knowledge.	Public's Lack of Interest.	

Figure 2: Example of some of the 248 codes which were initially identified.

Following the steps of Braun and Clarke's framework, the large number of initial codes were reduced by iterating through the codes, putting recurrent or similar codes together. Non-recurrent codes were removed or added appropriately to other groups. This reduced the 248 initial codes to 43 code groups. For example, '*Political Power*' and '*Lobby Power*' were grouped into the '*Power*' code group as they were related.

Following Braun and Clarke's framework, the researcher then mapped the occurrence of the 43 code groups across the interview transcripts. A colour was applied to the text of the code group to

assist the identification of the reoccurrence of code groups across interviews. This emphasized the importance of the code group across interviews. Given the number of code groups and limited number of colours, the same colour was applied to code groups which addressed similar concepts. For example, code groups relating to constraints, such as ‘*Producers: Lack of Expertise*’, ‘*Limited: Few Available Cider Apple Varieties*’ and ‘*No agreed way to taste, analyse and describe*’ were generally highlighted in red font and code groups relating to the public in blue font. The colour highlighted code groups are included in Appendix F and some examples is shown in Figure 3 below.

Interviewee_1	Interviewee_2	Interviewee_3	Interviewee_4	Interviewee_5	Interviewee_6	Interviewee_7
Difficulty describing Taste	No agreed way to taste, analyse and describe	Industrial Cider	Industrial Cider	No agreed way to taste, analyse and describe	Want to Improve Market for Craft	No agreed way to taste, analyse and describe
Need Education	Public's Understanding of Cider	Power	Needing public to buy	Sameness of Irish Cider	Welcome Assistive Tools	Difficulty describing Taste
Size of the Market for Craft	Frustrating and Challenging	Sameness of Irish Cider	Cider: can be Complex and High Quality	Difficulty describing Taste	Difficulty describing Taste	Needing public to buy
No agreed way to taste, analyse and describe	Want to Improve Market for Craft	Needing public to buy	Need Education	Need Education	Industrial Cider	Lack of Creativity
Public's Understanding of Cider	Need Education	Public's Understanding of Cider	Producers: Lack of Expertise	Limited: Few Available Cider Apple Varieties	Want to Improve Cider	Welcome Assistive Tools
Producers: Lack of Expertise	Producers: Some Producing Different Styles..	Difficulty describing Taste	Need Guidance	Welcome Assistive Tools	No agreed way to taste, analyse and describe	Industrial Cider
Want to Improve Market for Craft	Sameness of Irish Cider	Fear	Craft Cider Movement	Bulmers	Cider: can be Complex and High Quality	Want to Improve Market for Craft
Cider: can be Complex and High Quality	Size of the Market for Craft	Lack of Creativity	Faults	Producers: Lack of Expertise	Fear	Public's Understanding of Cider
Cider: Sunny Day with Ice	Want to Improve Cider	Want to Improve Market for Craft	Cider as simple, sweet alcohol	Public's Understanding of Cider	Lack of Interest	Want to sell different Styles
Distance to Wine or Food	Cider as simple, sweet alcohol	Cider: Breath of Styles	Distance to Wine or Food	Limited: Few Craft Producers.	Need Education	Cider: can be Complex and High Quality

Figure 3: Examples of the use of colour to highlight code group relationships

Additionally, the researcher also utilized the functionality within the Apple Numbers application to count the number of times a code group appeared within each interview and across interviews. The same text colouring was applied. The researcher then sorted the code groups in a descending order, with the most frequent at the top. This readily identified that seven code groups had arisen in each of the seven interviews: *'Difficulty describing Taste'*, *'Need Education'*, *'Need public to buy'*, *'No agreed way to taste, analyse and describe'*, *'Beside Beer'* and *'Producers: Lack Expertise'*. Eight groups arose across six interviews, seven groups across five interviews, five groups across four and so forth. The relative weight of a code group within an interview was also identified. For example, Interviewee_1 raised *'Difficulty describing Taste'* 21 times, while Interviewee_2 raised it only twice. In total, this code group arose 65 times across all interviews and was the most emphasized group. The importance of a code group which may not have reoccurred across multiple interviews was also identified and considered by the researcher. For example, while *'Power'* was raised only by Interviewee_3, it was raised 12 times, as that interviewee had a specific interest in that area. The researcher decided that the importance of this emphasis and specific interest justified the inclusion. The full listing of these counts is available in Appendix F and a screenshot sample of the process is shown in Figure 4 on the next page.

Code Group	Number of interviews code group arose	Mentions by Interviewee_1	Mentions by Interviewee_2	Mentions by Interviewee_3	Mentions by Interviewee_4	Mentions by Interviewee_5	Mentions by Interviewee_6	Mentions by Interviewee_7	Total across all interviews
Difficulty describing Taste	7	21	2	7	3	10	10	12	65
Need Education	7	16	3	3	8	8	6	3	47
Needing public to buy	7	1	2	10	9	1	6	12	41
No agreed way to taste, analyse and describe	7	8	9	6	3	15	8	16	65
Beside Beer	7	1	1	4	1	1	4	2	14
Producers: Lack of Expertise	7	6	1	2	6	4	2	2	23
Cider: can be Complex and High Quality	6	4	0	6	8	1	7	5	31
Lack of Creativity	6	1	2	7	2	0	1	10	23
Public's Understanding of Cider	6	8	7	9	0	3	6	6	39
Distance to Wine or Food	6	5	1	5	4	0	4	3	22
Want to Improve Market for Craft	6	4	4	7	2	0	13	7	37
Cider: Sunny Day with Ice	6	3	1	2	0	1	2	3	12

Figure 4: Sample of 12 code groups counted and sorted across and within interviews

The next steps undertaken addressed subjects and themes. Figures 5 and 6 show the analysis journey to find and refine subjects which arose from the code groups while Figures 7 and 8 show the finding and refining of themes which arose from those subjects.

Examining the code groups, the researcher identified subjects which were common amongst them. The subjects initially identified are shown in Figure 5. Subjects relating to the six code groups,

which arose across all interviews, have been emphasized in bolded text and larger borders. For example, the code group ‘*Difficulty describing Taste*’, which arose a total of 65 times and in each interview, is reflected in the similarly named subject ‘*Difficulty describing Taste*’ which is emphasized in Figure 5.

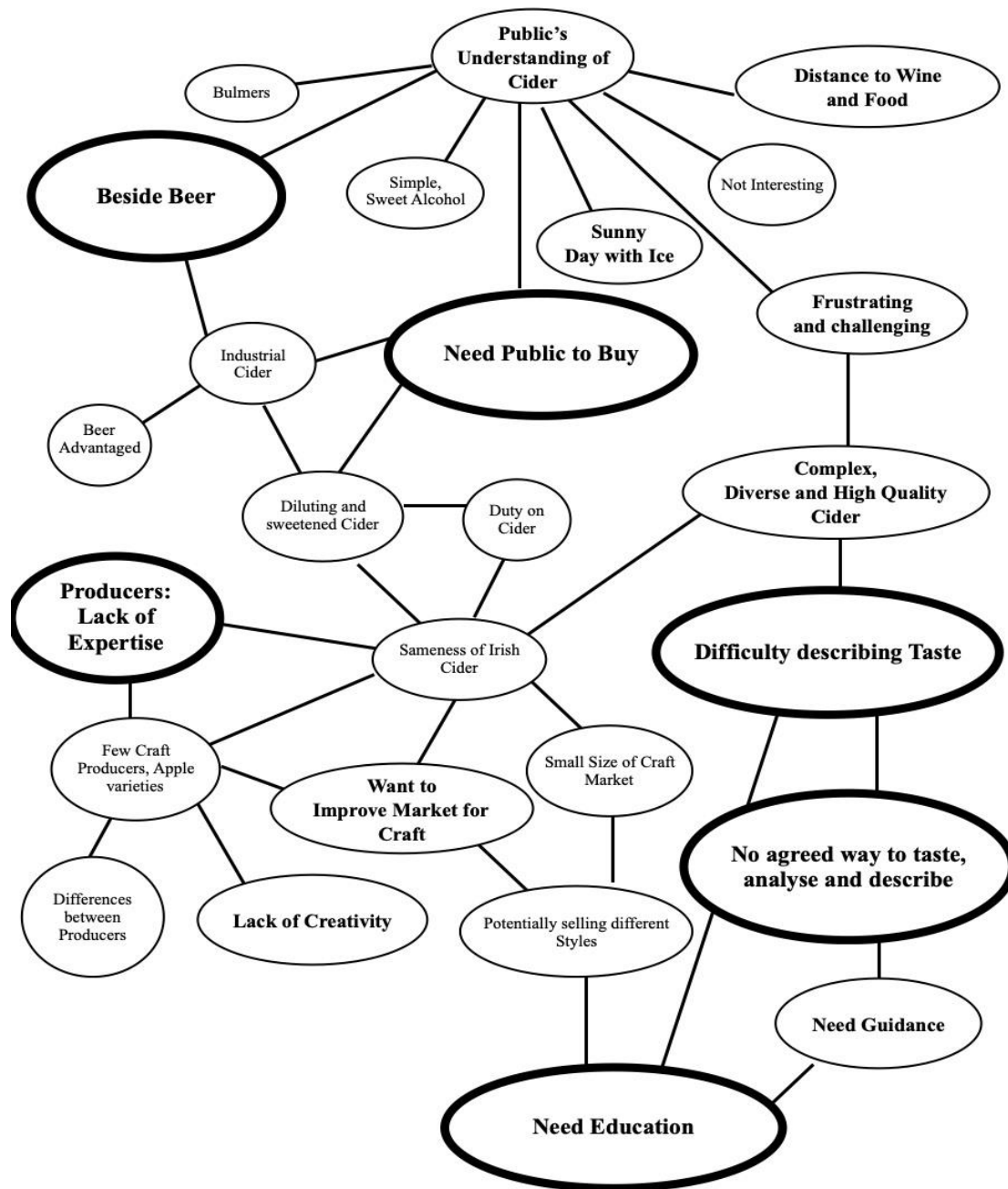


Figure 5: Initial subjects identified with emphasis on subjects relating to emphasised code groups.

A process of further reviewing and filtering these initial subjects resulted in a condensed, higher-level view of subjects. This process clarified the importance of some subjects which was not immediately apparent based on their code group weighting. For example, ‘*Sameness of Irish Cider*’ evolved from ‘*Duty on Cider*’, ‘*Diluting and sweetening Cider*’, ‘*Few Craft Producers, Apple Varieties*’ and other subjects, as each contributes to a similarity or sameness of taste in Irish ciders. Other subjects, such as ‘*Producers: Lack of Expertise*’ and ‘*Lack of Creativity*’, merged into ‘*Limited Expertise and Creativity*’. Several subjects relating to the ‘*Public’s Understanding of Cider*’ were merged into ‘*Public’s associations of cider*’. Figure 6 shows the result of funnelling the subjects. Subjects deemed of great influence are emphasized in bold text and borders.



Figure 6: Subjects after further reviewing and funnelling.

Having refined these subjects, the research then focused on the identification of themes which gave rise to those subjects. For example, the subject of the '*Public's associations of cider*' arose from a theme of '*Cider seen as Simple*' and the subjects of '*Sameness of Irish Cider*', '*Diluted Cider*' and '*Unfairly competing with Beer*' arose from the theme of '*Commercial Competition*'. The themes which were initially identified are shown in Figure 7 below.

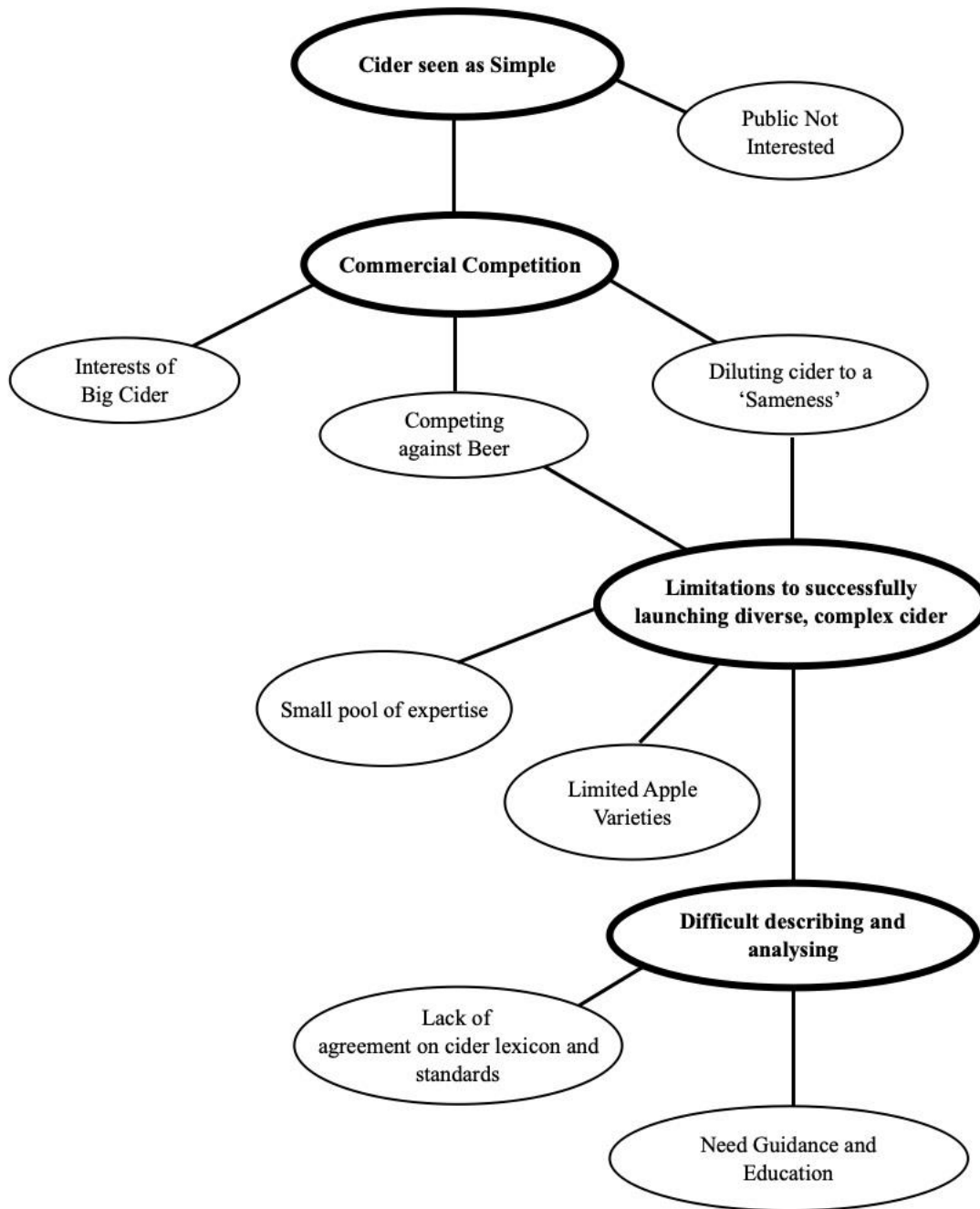


Figure 7: The themes initially identified from the funnelled subjects.

Further reviewing and filtering of these themes lead to the identification of four principle themes, namely ‘*Public Perception*’, ‘*Competitive Disadvantages*’, ‘*Constraints on Diversification*’ and ‘*Difficulties Describing Cider*’. The initial themes of ‘*Cider seen as Simple*’ and ‘*Public not Interested*’ feed into the principle theme of ‘*Public Perception*’ and the initial themes relating to

competition and diluting cider feed into the principle theme of ‘*Competitive Disadvantages*’. The various initial themes relating to limitations in expertise, launching diverse ciders and apple varieties feed into the principle theme of ‘*Constraints on Diversification*’. Similarly, the initial themes concerning the lack of agreement of a cider lexicon and standards, a need for guidance and education as well as the difficulties in describing and analyzing cider, feed into the principle theme ‘*Difficulties Describing Cider*’. The four principle themes identified as the end result of the thematic analysis are shown in Figure 8 below.

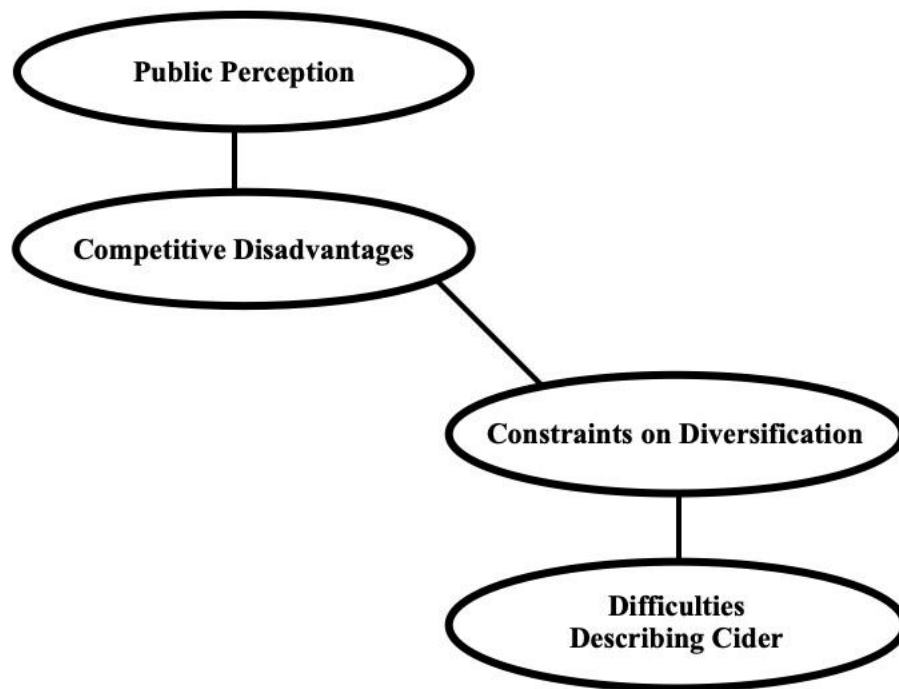


Figure 8: Four dominant themes identified as end result of thematic analysis.

4.3 Discussion about the Results

This section discusses those four dominant themes which emerged from the data analysis: *public perception*, *competitive disadvantages*, *constraints on diversification* and *difficulties describing cider*.

The researcher has applied his interpretation of the significance of patterns within the data in relation to the research aim and objectives. The researcher acknowledges the significance of his

own theoretical position relating to the systematic approaches to tasting, the decisions made while identifying the themes and “recognise[s] them as decisions” (Braun and Clarke, 2006, p. 81). The researcher regards systematic approaches to tasting beverages as beneficial to those beverage industries, producers, interested consumers and as providing opportunities to expand markets.

4.3.1 Public Perception

Cider is not regarded highly by the Irish public. Bulmers in Ireland has “*permeated the consciousness of what cider is*” (Interviewee_7) and “*appeal[s] to the lowest common denominator and [] is what people identify cider as, unfortunately*” (Interviewee_3). The public “*don’t understand cider as a unique product of its own and... suffer from what I call the Bulmers’ effect*”. (Interviewee_3). As a result, cider is viewed as cheap, simple, sweetened, fizzy drink, “*like [] alcoholic flavoured lemonade*” (Interviewee_4). Consequently, many craft-makers follow a “*mode of thought which says ‘make it very simple, make it very drinkable, make it very accessible and you’ll sell loads of it’*” (Interviewee_4). The most successful ciders tend to be “*the sweeter, most non-challenging ciders*” (Interviewee_6) and complex ciders with depths of flavours and challenging structures of high acidity or tannin are being viewed as commercially risky due to the public’s existing perception of cider. Despite this, some craft producers do produce complex ciders but these are “*bankrolled by the mainstream classic ciders that we produce*” (Interviewee_3). To focus solely on selling complex cider is not commercially viable. Cider is viewed as “*a summer drink that you put ice in*” (Interviewee_7) and the resultant cyclical nature of consumption results in cider-makers receiving 70% of their revenues during just three months of the year, exposing them to further financial risks.

Most Irish cider drinkers have little interest in understanding the complexities of cider and cider is not seen as a drink worthy of consideration. Interviewee_4 stated that “*the majority of people... want, literally, something that passes down the back of their throats, without even thinking about it*”. This lack of consideration relates not only to cider, but also to other drinks such as beer and wine. “*99.9% of people do not have a clue as to why they drink anything. Therein lies the problem to a certain extent*” (Interviewee_4). Consequently, there is a limited market for complex and diverse cider. Understandably, the interviewees describe this as “*a little bit difficult for a [craft]*

cider-maker, when you put so much effort into it and there is so little understanding of what a craft cider is” (Interviewee_2).

While cider was the third most popular alcoholic beverage in Ireland in 2019 (Drinks Ireland | Cider), it was predominantly a standard, simple style of cider. There is little public knowledge regarding the different cider styles beyond a general sweetness indication (dry, medium or sweet) or whether the cider is flavoured or not. Even writers and foodies are considered to be unfamiliar with the European cider styles which have protected geographical indications. Little is known of the volatile acid driven style of Sidre de Asturias DOP (Denominación de Origen Protegida) or the tannic driven, spicy, leathery style of Herefordshire Cider PGI (Protected Geographical Indication). Interviewee_5 declares *“it’s tiny the amount of people who would be aware... Food writers and wine writers and foodies, people into it would be vaguely aware of them”*. Without public awareness of the traditions of cider, styles and classifications, it is difficult for Irish craft cider-makers to stimulate demand for ciders of various styles, depths and complexity. Until then, simple ciders will continue to be the predominant ciders produced and sold.

Brown and Bradshaw (2013) describe a number of common cider styles, including farmhouse, keeved cider, apple wine, bottle-fermented, single varieties and cider derivatives such as brandy, pommeau, ice cider and perry. A number of Irish craft cider-makers produce those styles. Killohara Orchards produce ice cider, pommeau, perry and bittersweet ciders. Longueville House produces a cider brandy. The Cider Mill Slane produces cider through the keiving method. A number of craft cider-makers produce barrel-aged and single variety ciders. Some producers utilize varied production techniques such as wild yeast fermentations, malolactic fermentations, battonage and the actions of the *brettanomyces* bacteria to produce varied and complex flavours and aromas. However, the commercial viability for these products has been limited. As Interviewee_4 described when considering discussing different styles of cider with the Irish public - *“they literally would look at you as though you had two heads”*. The results in this research support applying Tozer *et al.*’s statement to the Irish public as well as the American public - “consumer knowledge of cider and their preferences for sensory characteristics, including taste, is limited” (2015, p.315).

The education and size of the consumer base were highlighted by the interviewees. *“We are going to find it very difficult to progress that until such time that we have a more educated consumer, a larger customer base and those two things are very important”* (Interviewee_3). Interviewee_1 recognizes that craft cider-makers *“haven’t been proactive enough in developing a wide enough range for the consumer to try out but married to that is the educational side”*. Clearly, there is a relationship of co-dependency between the public and the cider-makers. The public can only purchase ciders which the cider-makers produce and the cider-makers are economically dependent upon the public to purchase those products. Until complex and diverse cider are more commercially viable, they will only be produced in limited quantities and therefore availability to the public will be limited. Until the public understand and demand those ciders, they will continue to purchase simple ciders. This, in turn, reduces the commercial viability of complex ciders.

4.3.2 Competitive Disadvantage

The complete alcoholic fermentation of the sugars in apple juice results in the alcohol levels in cider ranging from approximately 5.5% alcohol by volume (a.b.v.) to 7.5% a.b.v. Some ciders ferment to higher levels naturally whilst others achieve higher levels of alcohol through the addition of sugars, in a process known as chaptalisation. As raised in Chapter 2, the Irish rate of excise duty on cider is tiered. Still and sparkling ciders between 2.8% a.b.v. and below 6% a.b.v. incur a duty of €94.46 per hectolitre, while above 6% a.b.v. and below 8.5% a.b.v. ciders incur a duty of €218.44. Duty increases further beyond 8.5% a.b.v. and at different rates - €309.84 per hectolitre for still cider, doubling to €617.70 per hectolitre for sparkling cider (The Office of the Revenue Commissioners, 2020). Following successful Bulmers advertising campaigns during the 1990s, cider has been *“squarely positioned [cider] beside beer”* (Interviewee_5) and is *“seen as a direct alternative to beer”* (Interviewee_6). Beer which exceeds 2.8% a.b.v. only incurs a duty of €22.55 per hectolitre. Additionally, beer micro-breweries may qualify for a 50% tax rebate through a relief scheme under The Office of the Revenue Commissioners (2021). No equivalent scheme is available to craft cider-makers. Interviewee_6 states that *“[u]nfortunately, for various reasons, cost of production, duty rates, all the rest of it - we can't be there, alongside beer... You know, it's just a fact of life. We can do nothing about it”*. Craft cider-makers feel competitively disadvantaged in comparison to beer against which cider has been positioned. As Interviewee_1 stated:

“The craft ciders, don’t get qualify for that, the same rebate... You have a can of beer: it is €2.50 and beside it, is a can of cider [for] €3.20 ... It’s a complete distortion of the market from that point of view.”

Still (non-sparkling) wine has a relative higher duty (€424.84 per hectolitre over 5.5% a.b.v.). Yet, the tiered duty on cider reduces the viability of cider to compete with that wine, otherwise “[w]e’d be in the category where we could compete with a white wine and compete very well” (Interviewee_1).

In order to reduce duty, cider-makers dilute their ciders with water or apple juice to lower the level of alcohol. This also dilutes the depth and complexities of flavours and structural components such as acidity, tannin, body, flavour intensity and length in the cider. To address this dilution of flavours, cider-makers then add apple-juice or concentrate back into their ciders in a process known as back-sweetening. However, after this process the flavour profiles and structures of the ciders are broadly similar. Subsequently, many Irish ciders are only “*differentiated by the amount that they are back-sweetened*” (Interviewee_5). Variations in flavour profiles, complexities and structural differences are lost and a ‘sameness’ is encountered in these ciders. Clearly, the current Irish taxation system results in the reduction of differences between ciders, lessening product differentiation and increasing in similarities amongst ciders. Subsequently, this has a negative influence on the adoption a systematic approach to tasting.

Flavoured ciders are subject to even greater disadvantages. “*You have to sell your flavoured cider at the same price point as your standard cider even though the duty implication is much higher*” (Interviewee_4). This higher duty on flavoured cider was intended to reduce the consumption of imported flavoured ciders targeted at younger drinkers which has impacted and frustrated Irish craft cider-makers: “*stop this muck from not coming in, and not paying enough tax! A craft cider-maker, making a mixed fruit cider is not at the level of alco-pops... It should be allowed to get to a place in the market without excessive duty*” (Interviewee_6).

Cider is also devalued by the pricing strategies of supermarkets in comparison to beer. “*The way that a supermarket has a price profile for wine, they’re not prepared to have that for beer or*

cider... They want to shoehorn all the cider into a price point and shoehorn all the beer in one price point” (Interviewee_4). Interviewee_6 decries that *“the cost of production is higher [than beer], and then, our taxation rates are higher and yet, you're insisting on devaluing”* (Interviewee_6).

Craft cider is further disadvantaged as many of the industrialized cider companies are owned by large beer breweries. *“[T]hey own them. The vast majority of them are brewers, Orchard Thieves, Apple Fox is Heineken. C&C is run operationally out of Tennents in Ireland. It's made like beer... always cider is secondary, especially to the big brewers”* (Interviewee_3). As a secondary focus, cider has struggled within the big industrialized brewers. *“Heineken have really struggled to fit that type of product profile into their commercial strategy... It's a mentality, it's a culture issue... They don't get it; they just can't get it”* (Interviewee_3). This struggle includes the positioning of cider as a higher quality product. *“Smaller volumes at higher margin... that is something that the big industrial cider producers haven't cracked onto”* (Interviewee_3). Those beer companies benefit by positioning cider as a low value product which supports rather than competes with sales of their beers.

In Ireland, cider must be made from a minimum of 35% apple juice but concentrated apple juice may be used to fulfil this 35% requirement. Industrial makers are *“using concentrate to fulfil their 35%, and that 35% is fulfilled by a smaller amount of concentrates. So, they might be getting 50% concentrates... [so effectively the] actually juice content is only 17%”* (Interviewee_7). Interviewee_6 describes a situation of meeting an industrial producer: *“he said ‘we get a load of water, a load of sugar, and we will ferment the hell out of it. And then we'll add some apple essence’. And I said ‘yeah’. But he said, ‘cheap as chips - 20,000 litres delivered to you’... Heartbreaking... Dirty industry”*. The depth of frustration and disappointment of craft cider-makers is clear.

Within groups which represent the cider industry, conflict exists between the representations being made on behalf of craft and industrial cider-makers. *“We are little piddlers... they want the small producers to improve their legitimacy when it comes to speaking to legislative bodies... They really don't give a [expletive] and aren't interested in the slightest. But we are good window dressing...”*

therein lies a massive conflict and it's the same at the European level" (Interviewee_3). Craft cider-makers highlighted an imbalance of power within the industry in a commentary regarding labelling:

"why are we the only food category that doesn't have to put our ingredients list on the product?'. If people knew what went in... there has been massive amounts of investment, nominally for the industry, but really for the big producers to lobby the EU to allow it [stevia] to be added as a sweetener" (Interviewee_3).

This imbalance and conflict impacts the ability of craft cider-makers to re-position craft cider in the public's mind as a complex drink, akin to wine, successfully market those products and argue for updates to taxation and support schemes.

Opportunities have been missed. *"We've probably really missed a trick, as cider-makers, to get into that place...to get into that place, maybe shy of white wine"* (Interviewee_6). Interviewee_4 highlights that *"we're all trying to produce cider: a wine glass is more important than a pint glass"*. The identity crisis which exists within the American cider industry (Fabien-Ouellet and Conner, 2017) is worthy of consideration in Ireland too, as Irish craft producers attempt to reposition craft cider towards wine. Furthermore, cider has not been positioned in the public's mind as a food pairing. Beer has taken that position, which causes strong negative opinions from craft cider-makers. *"I think, they've sold snake oil with some of the pairings with food. I think, a lot of beer does not go very well with food. And I think, cider is a much better natural accompaniment to food being fruit based, and also the acidity for different fatty foods"* (Interviewee_6). The lack of association of cider with food reduces interest in the structural components of cider, such as acidity, sweetness and tannin, which reduces the potential commercial benefits of increased public consumption with food.

Some of the frustration regarding competitive disadvantages are understandable. An imperial stout beer of 8.4% a.b.v. incurs a duty of €22.55 per hectolitre and the micro-brewery may receive a 50% rebate. A cider, naturally fermenting to a lower a.b.v. of 7%, incurs a duty of €218.44 per hectolitre and does not qualify to receive an equivalent rebate. While the imperial stout can retail in a national off-license chain for €8.95 (O'Briens, 2021), the cider would retail at a much higher

price due to ten-fold duty difference and lack of rebate. This makes it substantially less attractive to purchasers. Hence, the taxation system for cider encourages the dilution and back-sweetening of cider resulting in simple, sweet ciders which display a ‘sameness’ but which compete against multiple differentiated styles of beers. This ‘sameness’ negatively influences against a craft cider-maker’s adoption of a systematic approach to tasting cider which would highlight the flavour and structural complexities of those ciders.

Craft cider-makers lack the power to change these competitive disadvantages. However, craft producers in all industries have less representational power in comparison to larger producers. Competition can be undertaken through specialization and diversification. In 2019, Irish craft cider-makers produced less than 1% of Irish cider. By comparison, Bord Bia, the Irish Food Board, highlighted that the “craft beer market share has increased from 2.6% in 2017 to 3.4% in 2019” by (2020). Starting from a position similar to today’s craft cider producers, over a number of years, craft beer producers undertook specific actions to grow their market share, obtain tax rebates, educate the public and diversify their styles. Craft cider-makers should consider how the craft beer industry increased their market share.

4.3.3 Constraints on Diversification

Cider-makers being constrained from diversifying their ciders was the third dominant theme identified. The production of diverse and complex ciders requires experience, expertise, commercial viability, available inputs and motivation.

Despite Ireland’s historic cider industry, the current Irish craft cider industry is relatively young. Cider Ireland, the craft cider association for the island of Ireland, consists of only fourteen producers. Few have made cider commercially for more than 10 years. Most producers are inexperienced in the production of cider itself, let alone diverse and complex styles of cider. “*I firmly believe that our cider-making knowledge is very poor*” (Interviewee_1). They have not had appropriate time to build a depth of knowledge and they have not had the opportunity to gain knowledge from previous generations of cider-makers. The majority “*of cider-makers in Ireland, haven’t got a clue... Nobody’s got any history on the product really... Nobody’s got real in-depth knowledge passed down over the years*” (Interviewee_3). Many of the producers “*are kind of*

winging it” (Interviewee_7) and ‘learning-on-the-job’. They already encounter difficulties producing their current products to consistent levels of quality and will not attempt to commercially produce ciders of greater complexity. As many have received the same training, there may be a lack a diversity in the industry’s creative cider-making thoughts. *“The vast majority of the people who are now making cider in Ireland, went and got trained, usually in the Cider Academy in the west of England... They’re not as adventurous as perhaps they might be”* (Interviewee_3).

The required levels of expertise and motivation to produce complex ciders are lacking. *“I firmly believe that... the level of expertise and product diversification and production premium-isation within the cider industry within Ireland is not good enough”* (Interviewee_1). Cider-making is the primary commercial activity of only a few of Cider Ireland members. *“One of the other biggest challenges we have is, to be perfectly honest with you, [] is ... unlike the beer makers, a lot of the cider-makers are either apple farmers or hobbyists”* (Interviewee_3). Those farmers and hobbyists are unlikely to ever produce complex ciders without broader training, experience and encouragement. As a secondary activity, they are unlikely to invest the effort required to build the expertise required. The financial reward could be significantly less than the reward for investing their efforts in their primary commercial activities. They are unlikely to risk their primary activity by diverting their efforts and attentions into building the skills needed to make complex ciders over a number of years. These producers *“don’t necessarily have the time or the commercial motivation, because most people, you know, aren’t putting out products that are selling enough”* (Interviewee_7). Ireland is a relatively small, lowly populated island and few people purchase craft cider. Cider-makers struggle to sell their existing products. *“The market value is too small... In Ireland, it’s the population, we just don’t have enough people. You understand me? We’re struggling to get volume in people”* (Interviewee_1). Interviewee_2 makes his feeling clear: *“We are really minuscule in terms of the overall long-drinks market but it is annoying. All of the effort you put in”*. Cider-makers *“tailor [their] style to what the bulk of consumers in the island recognise as cider - which is limited”* (Interviewee_3). This constrains them from exposing themselves to increased commercial risk by increasing their production of diverse and complex ciders which may be commercially unsuccessful.

The availability of apples also constrains craft cider-makers. More specifically, they are constrained by the availability of apples which can produce diverse and complex ciders: cider-apples. The renowned, but now closed, Long Ashton Research Station, Bristol, England, created a classification system for cider-apples: the sharp, bittersharp, bittersweet and sweet varieties. The classifications are based on the proportions of acidity and tannins in the apples which build flavours and aromas when fermented into cider. ‘It is the precisely these properties that provide structure and complexity to the resultant cider’ (Cook, 2018, p. 47). Eating-apple varieties, such as the Bramley variety, contain insufficient quantities of those properties to produce complex ciders. Interviewee_5 highlighted that *“50% of the entire crop are Bramley apples which are absolutely pretty useless for cider.... I can't over-emphasise the dominance of Bramley in Ireland”*. However, many cider-makers use Bramley apples to produce cider due to the availability of the variety and therefore the ciders produced lack complexity. Only two specific cider-apple varieties are grown in volume in Ireland: the bittersweet Dabinett and Michelin varieties. When available to them, Irish cider-makers tend to *“use a standard mix of 50% of Dabinett and Michelin”* to produce their ciders. Therefore, even the ciders made from cider-apple varieties produce a ‘sameness’ based on the similar varieties and proportions of apples used. Interviewee_5 states that these ciders are *“all made from the same mix of apples... There is a certain sameness there”*. While Dabinett and Michelin are grown in Ireland, this does not imply that they are readily available to craft cider-makers as they are often predestined for large industrial producers through pre-agreed commercial growing contracts. *“All of the growers who are growing them are growing them for Bulmers. Us, little craft cider-makers, jump in there and grab some”* (Interviewee_5). A limited number of Irish craft cider-makers grow their own varied cider-apple varieties, including Longueville House, Killohara Orchards and The Cider Mill Slane. All other craft cider-makers are constrained from making diverse and complex ciders by the variety and quantity of available apples.

A fear of diversifying from simple style ciders also poses a considerable constraint. A more diverse style offering to the public would create a contrast in the public mind and likely result in greater public consideration of existing ciders. Some cider-makers may fear that their current products are not of sufficient quality or uniqueness, but that this has not yet been identified by the public. Other

cider-makers, or other beverage-makers, could therefore gain a competitive advantage over them. Interviewee_3 described that:

“Some people might be afraid [that] they're found out as being exactly the same as the guy next door... Some people can be afraid that in educating the customer, you're, maybe, showing them the faults in your own cider. The barrier? The barrier is fear... Maybe fear that somebody might, instead of just necking a bottle of cider, might actually analyse it and decide they like something else.” (Interviewee_3).

Interviewee_3 also suggested that this fear is shared with industrial cider-makers and breweries who make large profits by re-enforcing the public's perception of cider as a simple, sweet product. An informed, knowledgeable public would not be afraid to criticize and change their purchasing habits.

“The brewers won't want it... I mean this is the biggest problem we have with all of these things. If you introduce this, the consumers - the concern, I think, would be that - the consumers see that the Emperor is not wearing any clothes” (Interviewee_3).

If the public develop a desire for complex ciders, some craft cider-makers would suffer commercially due to the inability to produce ciders of complexity and keep the public's interest. Industrial cider-makers would be shown to only be producing simple, uninteresting ciders and would potentially need to consider diversifying their cider offerings. Neither have a desire to be exposed to such risk.

4.3.4 Difficulties Describing Cider

The taste of cider is difficult to describe. *“[I]n tasting...stuff starts to leap out... You're practicing something and then your brain kind of chucks out 'oh, this is like that'... But, I wouldn't necessarily have had the language to describe it”* (Interviewee_7). The results support Caballero and Paradis (2015) highlighting of how language is limited when describing sensor perceptions and experiences, Émile Peynaud's (1987) description of the limitation of our means of expression against the barrier of the inexpressible and Barry Smith's (2007) recognition of the insufficiency of language.

The subjectivity of taste, as highlighted by Todd (2011) and Bach (2008), was acknowledged by the interviewees. *“What I see is brown sugar and what someone else sees is caramel, maybe two different things”* (Interviewee_7). Interviewee_5 identifies that *“it’s very... the whole problem with it - is it is so subjective”*.

The interviewees readily identified the challenge posed by the lack of an agreed cider lexicon. *“The establishment of a language does not, is not, the same as ensuring everyone is educated or appreciates what that language means... But not even having a language is... even more challenging!”* (Interviewee_7). The linguistic infancy referred to by Robinson and Harding (2015, p.409) has not been overcome for cider. References to styles of cider cause confusion. Recognizing the attempts of the American Cider Association’s Cider Lexicon Project, interviewees highlighted the lack of agreement regarding the definition of various styles. *“It has caused a lot of controversy. Some cider-makers over there in America are saying it’s rubbish, it’s just not workable”* (Interviewee_5). *“American cider styles are extreme, extremely extreme, mainstream and weird”* (Interviewee_4). Confrontation can arise. *“[T]hey do all have their own terminology, and you do end up with that sort of confrontation, where they’re saying ‘what are you talking about? that relates to this over there’”* (Interviewee_3). The results support McKie’s (2014, p.70) statement that “methodologies for tasting cider are not [well-developed]”, James’s (2017, p. 31) advice of “avoiding the hot-button term style” and Cook’s declaration that “there isn’t a particularly developed lexicon, language, stylisation associated with [cider]” (2020).

Without a shared language, it is difficult to share understanding. *“You put 10 of us in a room and you give us all the same bottles of cider or tastes of cider. I guarantee you that you’ll get 10 different answers”* (Interviewee_1). The importance of agreeing a lexicon was acknowledged. *“The right place to start is the consistency of the terminology of what ciders are. The lexicon.”* (Interviewee_2). In the interim, there is a lack of shared understanding of the words tasters use to describe cider. As Williams (1975) identified, ciders “are very complex and extremely varied” and a cider language needs to be universally understandable and accurately defined. The description of sweetness in cider poses a particular difficulty. The interviewees identified the confusion which arose when some tasters refer to ‘dry’ as a lack of sweetness but others refer to ‘dry’ as a measure of tannin within the cider. As Interviewee_5 stated:

“One thing is that issue of the dryness. That needs to be overcome in some way that it is understandable for everyone, in terms of sweet and in terms of tannins. That to me is the biggest barrier, or confusion area for everyone”.

Clearly, the need for standardization as part of the solution to resolve confusion regarding styles is recognized. *“So, if you want to solve the issue of the confusion, we have to solve the riddle of [a] standardized approach to the tasting of cider to give us the answers to develop the styles”* (Interviewee_1). That standardization requires a consistency of approach and knowledge. *“To get rid of the confusion, the first stage, is to start, as you’re doing, with a standard approach to tastings profiles. And the second part to tasting profiles is standardising the knowledge within the people doing the [tasting] profiles”* (Interviewee_1). Cider has not yet developed a learnt culture similar to that of wine (Robinson and Harding, 2015). Rather than attempting to define a nearly complete lexicon (including definitions of styles) in a single attempt, it would be more beneficial to first focus on small pieces of an overall lexicon. These smaller pieces could be regarded as sub-lexicons. The researcher suggests that the words used when tasting a cider and a systematic approach to tasting that cider be regarded as a sub-lexicon and a candidate for the first sub-lexicon to be considered for development and adoption by the industry.

This researcher was surprised that the analysis results highlighted the limited ability of some cider-makers to identify flavours. *“The cider-maker, first of all, does not know how to identify a characteristic in the cider... we don’t have enough knowledge in identifying both positive and negative flavours and aromas in cider”* (Interviewee_1). *“It’s very easy to say there’s gooseberry if people actually know what gooseberry is like... Do people actually know what quince tastes like or smells like? What’s the difference between a mandarin and tangerine?”* (Interviewee_4). Limited ability to identify and describe taste was a recurrent theme. Interviewee_1 provided an interesting analogy:

“If you never went to school and never had anyone to tell you green, yellow, gold colour... You saw green, yellow, gold every day of your life but no one ever told you what colour green, yellow, gold was ... You could call green red, and yellow blue and blue pink - cos that’s the words you put on it. Same with analysing the cider.”

The challenge to analyze and describe the components of the structure of cider, such as acidity, tannin, sweetness and length, was also recurring. Acidity was described as *“tie[ing] people up in knots... People don’t know acidity”* (Interviewee_6). Sweetness and assigning a description of the correct level of sweetness to ciders was regarded as the *“biggest barrier, or confusion area for everyone”* (Interviewee_5). Potentially assigning the correct description to a cider’s sweetness would involve re-categorizing many of the ciders already on the market and relabelling ‘dry’ and ‘medium’ differently. Such re-categorisations would have public and commercial impacts on craft cider-makers and would meet some resistance.

The limited ability of some craft producers to identify flavours and the difficulty in analyzing their ciders resulted in the requests for assistance from the researcher. *“[O]ne of the great areas would be if you could organise a course, say, on identification of flavours in, in alcohols both positive and negative. You know what I mean? Could you run a course like that?”* (Interviewee_1). The researcher was requested to create an educational course to assist the cider-makers. The inability to identify flavours restricts the cider-makers’ ability to manage and extenuate positive flavours. This effects overall production as it restricts their ability to guide the fermentation, ageing and blending of their ciders in a positive direction. It also restricts positively marketing of their cider through label descriptions for multiple sales channels. Without the ability to identify negative off-flavours, cider-makers are unable to manage faults in the cider production process. This can result in disposing of and being unable to sell the cider which has been produced and loss of investment. Alternatively, the producer attempts to sell a flawed product which incurs negative sales, reputational damage and brand impact. The importance of identifying negative off-flavours was re-iterated when describing a potential educational course:

“you’d have in that glass of cider a whole pile of off-flavours and then a whole pile of positive flavours... that would then form an education and the likes of myself would then pay you so many hundred[s] of euros to go to your course... to learn the right identification to go with it” (Interviewee_1).

The interviewees acknowledged that various suggested methods of tasting cider exist but stated that *“their tasting approach is not structured - we don’t have a structured approach... it’s the fact that there’s not one out there to adopt... If you create one, then there’s one to adopt”*

(Interviewee_1). To date, the industry in Ireland has not adopted any approach such as those suggested by Williams (1975), McKie (2014), Brown and Bradshaw (2013), Watson (2013) or the American Cider Association (2019c).

The lack of an accepted cider lexicon, an ability to identify flavours and aromas and the lack of an accepted method (a systematic approach) to tasting cider support The Dublin Society's observation of 1737 that "... 'tis a hard matter to describe to the Palate, and set the Rules to Taste" (p.149). The results also re-iterate the difficulty regarding diverse styles of ciders. However, while today confusion and negativity arise, in 1737 it was viewed that "the endless Variety of different Flavours to be found in different Kinds of Cyder may be reckon'ed an Advantage". This advantage has not realized by the modern craft industry economically.

The difficulties describing cider reduce the ability of the craft cider-maker to communicate clearly about their ciders. "*If producers don't have an understanding it's... it's very difficult for them to convey that to the public*" (Interviewee_4). The public are consequently impacted. This supports the Tozer *et al.* statement that "consumers are faced with a difficult task of making a cider purchase based on inconsistent information on the product label" (2015, p. 315). Additionally, communication to people in various sales channels roles are reduced which further impacts cider-makers as they are "*the ones that are going to drive whether or not your product is stocked or not and whether or not your product is more likely available to the average person*" (Interviewee_4). These difficulties impact sales and have financial consequences on craft cider-makers.

4.4 Conclusion of Discussion on Analysis

Themes of *public perception*, *competitive disadvantages*, *diversification constraints* and *difficulties describing cider* emerged from the data analysis. Each of these themes influences the adoption of a systematic approach to tasting cider by Irish craft cider-makers.

In Ireland, there is little public knowledge or interest in the potential complexities and styles of cider, compared to other European countries, despite Ireland's history of making cider. Bulmers is the dominant force on the Irish market and presents cider in the public's mind as a cheap, simple, summer drink. Consequently, the majority of ciders produced to meet the demand of the Irish

market are simple and sweet. Low demand for complex ciders results in low production volumes of ciders with divergent flavours, structures and complexities which would be highlighted by the adoption of a systematic approach to tasting cider.

Craft cider-makers feel competitively disadvantaged by the Irish taxation system in comparison to beer against which cider has been positioned. Craft cider-makers lack the support of taxation relief schemes which are available to craft beer makers. The tiered scheme of excise duty on cider results in diluted, back-sweetened and simple cider which display a 'sameness' of taste profile. Depths and complexities of flavours and structures in ciders are lost. The benefit of analyzing and comparing these ciders is diminished as they become broadly similar in taste profile. Supermarkets' pricing strategies devalue cider in comparison to beer. Many industrial cider-makers are owned by large beer breweries who position cider as a low-value product to support, rather than compete with, sales of their various beers. Craft cider-makers are frustrated by the practices of industrial cider-makers and the relative imbalance of power within representational bodies which impacts their ability to re-position craft cider in the public's mind as a complex drink, akin to wine and successfully sell such products. The tiered scheme of excise duty on cider has a very detrimental impact on the Irish craft cider industry.

In addition to the impacts of the Irish taxation system and cider's positioning beside beer, there are further constraints on cider-makers which limit diversification into complex styles of cider. As the craft industry is relatively young, many cider-makers are constrained by their own inexperience and lack of expertise to make these complex ciders. Cider-making is a secondary commercial activity for the majority. The small size of the craft cider market and limited demand for complex ciders, at present, restricts the range of products they produce. The varieties and quantities of apples available for craft cider-making are also limited. The majority of apples available are eating-apple varieties, such as the Bramley, which do not produce complex ciders. While two specific cider-apple varieties are available, the Dabinett and the Michelin, they are only available in limited quantities to craft cider-makers. These constraints restrict diversification into complex ciders and thus negatively influence the adoption of a systematic approach to tasting cider by Irish craft cider-makers.

Irish craft cider-makers encounter difficulties when describing cider. There is no mature, generally accepted cider lexicon for them to use. Difficulties arising from the limitations of language impact communications between them, their sales channels and the public at large, impact sales. Some of the craft cider-makers acknowledged their difficulties in identifying flavours and structurally analyzing their own ciders. No systematic approach to tasting cider has been available for the craft cider-makers to adopt. The challenge of describing the taste of cider, as highlighted in 1737, continues to exist today for the craft cider industry but the economic benefits and market advantages of cider's diversity of styles and 'endless variety' of flavours have not being realized by the modern craft cider industry.

Each of the four themes arising from the data analysis negatively influences the adoption of a systematic approach to tasting cider by Irish craft cider-makers and may be regarded as an obstruction or barrier to that adoption.

5 Chapter Five: Conclusions and Recommendations

5.1 Introduction

This chapter revisits the aim and objectives of this dissertation and highlights the conclusions which can be drawn from the results of the research. The limitations of the research and recommendations for future research to be undertaken will also be presented.

5.2 The aim and objectives of this research

The overall aim of this research set out in Chapter 1 was:

- To identify the primary factors influencing the adoption of a systematic approach to tasting cider within the Irish craft cider industry.

In order to achieve this aim, a number of clear objectives were identified:

- To investigate Irish craft cider, past and present.
- To explore the difficulties in describing the taste of cider and similar beverages.
- To understand the role which systematic approaches to tasting beverages that are similar to cider, such as wine, can play in influencing approaches to tasting cider.
- To examine the current thinking among Irish craft cider-makers regarding the adoption of a systematic approach to tasting cider within the Irish craft cider industry.

The first three objectives were achieved through secondary research and the analysis of relevant literature. The final objective was achieved through primary research in the form of an extensive exploration into the thinking of key stakeholders in the Irish craft cider industry. Seven in-depth interviews with Irish craft cider-makers were thematically analyzed to identify the primary factors influencing the adoption of a systematic approach to tasting cider. To facilitate this research, the researcher created a systematic approach to tasting cider which was presented to and discussed with these experts. A list of interview questions was also provided to each interviewee in advance

to facilitate the interviewees giving appropriate consideration to the questions. The interviews were semi-structured and allowed the interviewees to describe and develop subjects as they deemed appropriate. Nearly seven hours of interviews and 55,000 words of transcript were thematically analyzed and four themes were identified as the primary factors influencing the adoption of a systematic approach to tasting cider within the Irish craft cider industry - *public perception*, *competitive disadvantages*, *constraints on diversification* and *difficulties describing cider*. The analysis results were discussed in the previous chapter.

5.3 Drawing Conclusions from the Objectives

Objective 1: To investigate Irish craft cider, past and present.

This objective was achieved through a review of the academic literature and publications relating to the history of craft cider in Gaelic Ireland, Georgian Ireland and modern Ireland. The investigation has shown that cider has a long, but relatively unexplored, history in Ireland. While the position of cider in Gaelic Ireland is disputed, the economic importance and high regard for Irish cider in Georgian Ireland is not reflected in modern research literature. Cider's position in Ireland was devastated by changes in the economics of agriculture, the consequences of The Great Famine, changes in beverage fashions, the growth of beer and other factors. Modern researchers' interest in cider has subsequently diminished.

The scarcity of research relating to cider during these two periods is worthy of consideration. The lack of confirmation of *nenadmin* as meaning a Gaelic cider made from wild crab-apples is significant. Cider is not highlighted in the songs or poems of Gaelic Ireland such as *The Vision of Mac Conglinne*. Subsequently, cider was not identified as an important foodstuff in Gaelic Ireland in the seminal writings of A.T. Lucas and others. However, the lack of mention of *nenadmin* in those songs and poems does not mean that *nenadmin* did not refer to cider. As wine, beer and mead were mentioned in those Gaelic songs and poems, materials were available to researchers to highlight those beverages. Without available Gaelic literature or materials which mention *nenadmin*, research cannot definitively conclude as to the importance of cider in Gaelic Ireland.

However, the potential that *nenadmin* could refer to cider means that cider cannot be disregarded as having been present and of importance in Gaelic Ireland. Further research is required to clarify the meaning and importance of the word *nenadmin* so as to inform the position of cider in Gaelic Ireland.

Modern research into beverages in Georgian Ireland has focused on the importance of wine and beer. Limited references to cider are made such as in brief mention of the importation of cider from the port of Bristol. Cider is mentioned in connection with the staff working downstairs in the great houses of the English-speaking ruling class but not served on the side-boards of the dinner rooms of those houses. Research has been enabled by the written accounts of and correspondence between inhabitants of those great houses and a general interest in the lives of the occupants. However, it appears that modern researchers have not taken a wider economic perspective when analyzing beverages from this period. Rather, it is some of the writings of that time, such as those of the agronomist Arthur Young, that specifically take an economic perspective. The publications of The Dublin Society specifically acknowledge and highlight the importance of cider to the Irish economy during this period when Ireland was under restrictive trade laws and an Irish Parliament in Dublin, which was controlled by the United Kingdom Parliament. Creating a domestic cider-producing industry provided one of the few opportunities to create an area of the economy not controlled, restricted or manipulated against Ireland and to the benefit of the United Kingdom. Cider was economically important to Ireland and recognized as such from the inception of The Dublin Society. However, extensive research has not yet taken place on this economic importance and the 1737 cider-making instructions of The Dublin Society.

Craft cider has not returned to the levels of prestige or popularity of cider in Georgian Ireland. Today craft cider constitutes less than 1% of the Irish cider market. In comparison to craft beer which holds 3.4% of the Irish beer market. This is a disproportionally small market segment and it should be considered whether the craft cider industry has undertaken, or been successful in undertaking, the actions necessary to increase its market segment similar to the actions undertaken by craft beer producers over recent years. Cider is the third most popular alcoholic drink in Ireland

and a valuable market. Increasing the share of craft cider within that market would have large financial benefits to craft cider-makers and local economies.

The Irish public remain unaware of cider's history in Ireland and the potential of the history of Irish craft cider is under-utilized by the modern craft cider industry. Few craft cider-makers or ciders, such as the Cockagee cider of The Cider Mill, utilize historic references. This history provides opportunities to distinguish Irish craft cider from modern industrial cider and could also provide opportunities to expand Irish craft cider into international markets.

Objective 2: To explore the difficulties in describing the taste of cider and similar beverages.

This objective was achieved by a review of the relevant literature which highlighted that the difficulties in describing taste are not limited to cider or wine and the limitations of language form the basis for these difficulties. Understanding between individuals requires that those individuals agree as to the meaning of the words being used to communicate. However, this is particularly difficult with regards to the intangible sensations and experiences of taste. These intangibilities result in differences between the subjective expression of taste by the describer and objective interpretation by the reader or listener and the subsequent misalignment of understanding between them. Simply put, the choosing of words to describe what you have tasted does not mean that a reader or listener will share the same understanding of those words. Consequently, the intended meaning of the description of a taste cannot be truly shared but only interpreted by the reader or listener. This misalignment may be reduced in non-European languages which have established abstract words to describe odours. The establishment of those words within those languages implies a better alignment of understanding taste between those who have learnt and understand those languages. Further research and analysis into those languages and taste descriptions would support greater understanding of the difficulties of describing taste in all languages.

Languages become established through usage and shared agreement. Consequently, it is possible for lexicons and languages within languages to become established and which focus on particular topics, such as the taste of wine. The acceptance by users of these lexicons help to reduce

misalignments of understanding between users of that lexicon. However, it is not possible to completely remove these misalignments due to the personal subjective experience of taste itself. This applies not only to beverages but also to other foodstuffs. The consideration therefore arises as to why specific lexicons have been established, accepted and generally recognized for various food items.

Wine, whiskey and sake are highly regarded by society and specific lexicons have been established around them. Caviar and oysters are also highly regarded but are not generally associated with specific lexicons. All are associated with social capital but only the beverages contain alcohol. Cider contains alcohol but is not highly regarded by Irish society or associated with social capital. A lexicon has yet to be established around cider. Perhaps high regard in society, social capital and the intoxicating element of alcohol are required to create the interest to establish foodstuff lexicons.

Objective 3: To understand the role which systematic approaches to tasting beverages that are similar to cider, such as wine, can play in influencing approaches to tasting cider.

From the research, it was concluded that there is a scarcity of research relating to systematic approaches to tasting cider and cider lexicon. It was also concluded that the structured approach to tasting wine can inform and positively influence the creation of such an approach for cider.

Both wine and cider are the results of the alcoholic fermentation of fruit juice. Their structural components are similar - sweetness, tannin, acidity, body, alcohol, flavour intensity and taste duration. The flavours and aromas of both are similar and range from primary flavours of flowers, green fruit, stone fruit and tropical fruit through to secondary flavours relating to barrel usage, fermentation and ageing techniques. However, wine has roughly twice the alcoholic content of cider, greater potential to develop additional flavours with age and has been associated with the classical Greek and Roman cultures which developed across regions of Europe where grapes, rather than apples, grew abundantly. Perhaps these differences have contributed to wine's greater popularity and social regard as well as the scarcity of research relating to cider lexicon and systematic approaches to tasting cider. Nevertheless, the similarities between the beverages are

such that the systematic approach to tasting wine can play a positive role on the development of a systematic approach to tasting cider. By analyzing those common components, flavours and aromas as well as the WSET systematic approach to tasting wine and available literature on tasting cider, the researcher developed a systematic approach to tasting cider. The template for this approach was positively received by interviewees and they have adopted it for use amongst themselves.

The cider industry can benefit from adapting the tools of the wine industry. For example, a number of different levels of systematic approaches to wine are specified by the WSET, each of which has an increasing level of complexity. The basic levels focus on supporting the general public's introduction to wine tasting. A similar approach would benefit the cider industry. The need to communicate clearly about cider is growing but the cider industry has yet to accept a cider lexicon. Without acceptance, the cider industry will continue to encounter difficulties such as the 'identity crisis' of cider in America. These global challenges restrict the growth of the cider industry. Without the ability to share an understanding of cider within the industry itself, it is extremely difficult to communicate clearly to the public. Until the public understand or appreciate the complexities of cider, the growth of cider industry will be restricted.

Objective 4: To examine the current thinking among Irish craft cider-makers regarding the adoption of a systematic approach to tasting cider within the Irish craft cider industry.

This objective was achieved through the identification and examination of four themes which arose from the thematic analysis - *public perception, competitive disadvantages, constraints on diversification and difficulties describing cider.*

Cider has a lowly public perception in Ireland and the public have little interest or knowledge in cider's complexity and diversity. Unlike wines, geographically protected European ciders are not well known in Ireland. The influence of Bulmers and other industrial ciders means that cider is predominantly understood as a simple, sweet, summer drink. Yet, cider is the third most popular alcoholic beverage in Ireland. The esteemed position of cider in Georgian Ireland and potential of

nenadmin in Gaelic Ireland are unacknowledged. The modern Irish craft cider is not leveraging these as marketing opportunities and not using them to reposition craft cider in the public perspective. Changing the public perspective to craft cider with increased awareness and knowledge is crucial to increasing the disproportionately small market segment of craft cider. Until the demand for complex and diverse styles of Irish cider increases, craft cider-makers will be commercially restricted from producing those ciders. Consequently, the adoption of a systematic approach to tasting cider will be limited.

Craft cider-makers feel competitively disadvantaged by the Irish taxation system in comparison to beer against which cider has been positioned. Craft cider-makers lack that the support of taxation relief schemes available to craft beer makers. The scheme of tiered rates of excise duty on cider results in the diluted, back-sweetened and simple ciders which display a 'sameness' of taste profile. Depths and complexities of flavours and structures in ciders are lost. The benefit of analyzing and comparing these ciders is diminished as they become broadly similar in taste profile. Supermarket pricing strategies devalue cider in comparison to beer. Many industrial cider-makers are owned by large beer breweries who position cider as a low-value product to support, rather than compete with, sales of their various beers. Craft cider-makers are frustrated by the practices of industrial cider-makers and the relative imbalance of power within representational bodies which impacts their ability to re-position craft cider in the public's mind as a complex drink, akin to wine and successfully sell such products. The current scheme of tiered rates of excise duty on Irish ciders has a very detrimental impact on the Irish craft cider industry.

Irish craft cider-makers are constrained from diversifying their products into complex ciders. Cider-making expertise is limited within this small and (re-)emerging industry. Many of the cider-makers lack appropriate experience. Cider making is a secondary commercial activity for the majority. Many are also constrained by their limited ability to analyze and identify cider flavours and need training and support. The small size of the craft cider market and limited demand for complex ciders also constrains the viability of the products they produce. The availability of apple varieties and quantities of certain varieties also constrains their cider-making activities. The majority of available apples are eating apple varieties, such as the Bramley, which do not produce

complex ciders. The two specific cider apple varieties available, the Dabinett and the Michelin, are only available in limited quantities to craft cider-makers. These constraints limit diversification into complex ciders and negatively influence the adoption of a systematic approach to tasting cider by Irish craft cider-makers.

Difficulties describing cider also constrains Irish craft cider-makers. There is no mature, generally accepted cider lexicon for them to use. Language, subjectivity and difficulty communicating arise which impact communications between them, their sales channels, the public and therefore sales. There is no systematic approach to tasting cider available for them to adopt. The challenge of describing the taste of cider, as highlighted in 1737, continues to exist today but the economic benefits and advantages of cider's diversity and 'endless variety' of flavours are not being realized. The adoption of a systematic approach to tasting cider within the Irish craft cider industry may provide opportunities to describe and create craft cider of greater diversity, complexity and quality. Additionally, this may also support the better marketing and positioning of craft cider, public awareness, education and support a campaign to have the excise duty system reviewed. Increased public demand, sales, revenues, quality production and improved future for Irish craft cider could result.

Each of the four themes which emerged from the thematic analysis negatively influenced the adoption of a systematic approach to tasting cider within the Irish craft cider industry.

5.4 Limitations of the Research

COVID-19 has limited this research. As travel was restricted domestically and internationally, the initial research topic required considerable adjustment. Interviewing in the physical presence of interviewees was limited to two interviews. The depth of communication within the other technology-based interviews was reduced and the interviews were of longer duration. The number of interviewees was limited as a function of the exploratory nature of the research. Further interviews could be done with the craft cider-makers outside Cider Ireland. As no systematic

approach to tasting cider exists or has been widely recognized and adopted by the international cider industry, the researcher was required to create an approach for research purposes.

5.5 Recommendations for further research

Based on the findings of this exploratory investigation, it is recommended that further research be undertaken in a number of areas.

Recommendation 1: To investigate further into the history of Irish Cider.

This research has highlighted the potential for nenadmin to refer to cider made from wild crab apples in Gaelic Ireland. Further research into cider in Gaelic Ireland and nenadmin could clarify this potential. The Irish craft cider industry could utilize this history to build the story of Irish cider and grow the Irish craft cider industry.

The economic importance of cider in Georgian Ireland has not been extensively researched in comparison to other beverages such as beer and wine. Further research, with an economic perspective and utilizing the 1737 writings of The Dublin Society, could address this gap and support the growth of the Irish craft cider industry.

Recommendation 2: To compare historic cider-making instructions and modern wine-making techniques.

Comparing the similarities of the 1737 cider-making instructions and modern wine-making techniques could inform the understanding of the similar production of quality beverages across centuries and beverages.

Recommendation 3: To compare the developments of the Irish craft beer and craft cider industries over the past two decades.

This research has highlighted the proportionally small Irish market segment of craft cider in comparison with the craft beer segment. Research into the growth of the craft beer segment in recent years may inform and support the growth of the craft cider and other craft industries.

Recommendation 4: To review the potential to reform of excise duty on cider within the Irish taxation system.

The current Irish scheme of tiered excise duty on alcohol in Irish ciders has a negative and unfair impact on the Irish craft cider industry. Research into the reform of this scheme, including lobbying and pre-budget submissions to the Department of Finance by the Irish craft cider industry, is recommended.

Recommendation 5: To explore the description of the taste experience in certain non-European languages.

The limitations of European languages were highlighted in this research. Analyzing taste descriptions in non-European languages, which have established abstract words for odours, could provide insights into communication misalignments in European languages and greater understanding of taste experiences.

Recommendation 6: To investigate the factors contributing to the development of foodstuff lexicons.

Alcoholic beverages, such as wines, whiskey and sake, are associated with high social status and specific lexicons. Cider is an alcoholic beverage of lower social status and without an established lexicon. Certain foods, such as caviar, have high social status but are not generally associated with established lexicons. An exploration into the factors influencing the development of specific lexicons could inform an understanding of the developments of specific lexicons.

Recommendation 7: To further explore the development of a systematic approach to tasting cider, based on the systematic approach to wine.

There is a scarcity of research into a systematic approach to tasting cider. As shown by this exploratory research, the development of such an approach can be positively influenced by the systematic approach to tasting wine. Further research would provide greater understanding of the development and adoption of a systematic tasting approach and potential benefit to both the craft and wider cider industry.

Recommendation 8: To investigate the development of a cider lexicon.

There is a scarcity of research into cider lexicon development which further research would inform.

In parallel but separate to his research aim, the researcher has considered a potential approach to the development of a cider lexicon. Adopting a cider lexicon includes agreeing the definitions of cider styles which have commercial implications. Negatively impacted cider-makers will resist agreeing to them. Rather than attempting to agree a complete cider lexicon, the researcher suggests breaking the overall lexicon into a number of sub-lexicons and attempting to agree less controversial sub-lexicons first. The diagram on the next page attempts to communicate the concept of an overall cider lexicon which is constructed of a collection of sub-lexicons. It is suggested that the systematic approach to tasting cider be the first of the sub-lexicons to be agreed and is shown in green. Other sub-lexicons are shown in light grey. The overall cider lexicon, which would contain all of the sub-lexicons, is shown in darker grey.

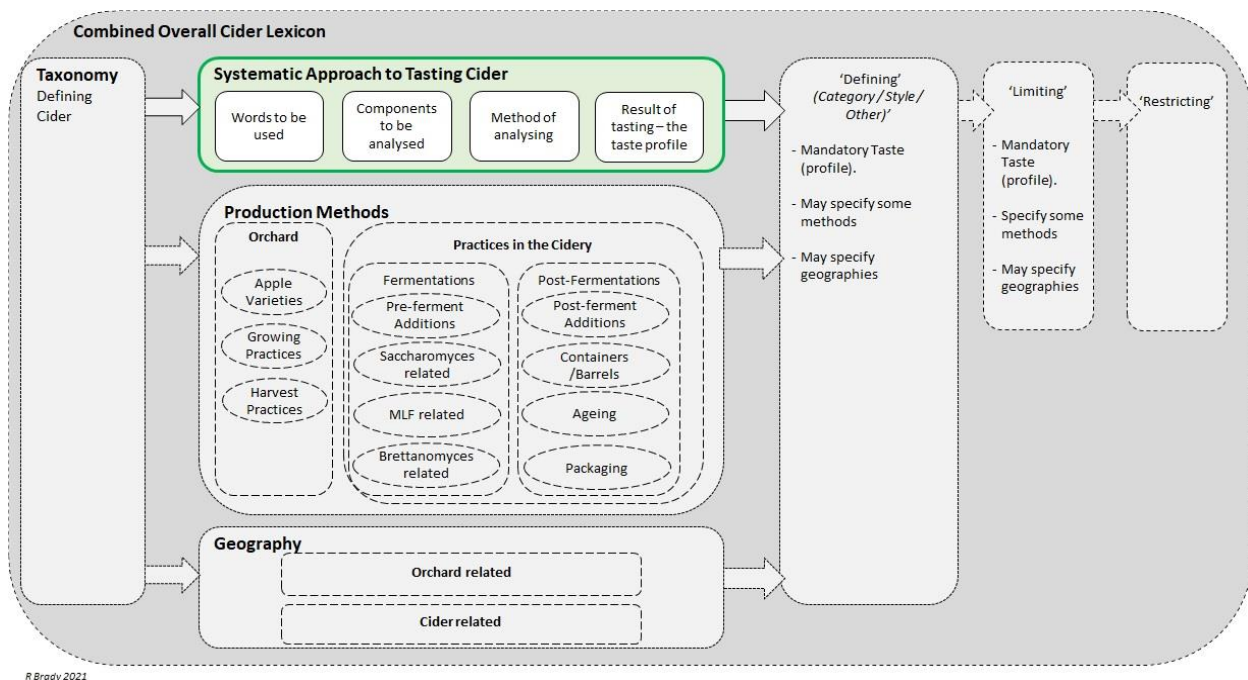


Figure 9: Concept of an overall cider lexicon constructed of sub-lexicons

This approach could also potentially assist the understanding and development of lexicons relating to other beverages.

Recommendation 9: To investigate the potential of providing taste identification and structural analysis training to craft cider makers.

A number of the interviewees described their difficulties in identifying flavours and analyzing the structures of their ciders. Further research would analyse any potential changes following the provision of training in those areas in the production, quality, diversity and sales of ciders produced by those cider-makers.

Recommendation 10: To explore the potential removal of barriers to the expansion of the Irish craft cider industry.

Four themes were identified within this research which relate to barriers. Further research could explore the potential removal of those barriers and the expansion of the Irish craft cider market.

5.6 Summary

This exploratory research has identified the primary factors which influence the adoption of a systematic approach to tasting cider within the Irish craft cider history. It has examined cider history in Gaelic Ireland, Georgian Ireland and modern Ireland as well as the difficulties of language, particular European languages, in describing taste. The influences of systematic approaches to tasting beverages similar to cider, such as wine, have been examined and the scarcity of research into cider lexicon and systematic approaches to tasting cider have been highlighted. Four themes have been identified from the analysis which act as barriers or negatively influence the adoption of a systematic approach to tasting cider within the Irish craft cider industry - *public perception, competitive disadvantages, constraints on diversification and difficulties describing cider*. Further research has been recommended into the history of Irish cider, historic cider-making techniques, comparing the craft beer and cider industries, exploring taste descriptions in certain non-European languages, factors contributing to the development of foodstuff lexicons, further development of a systematic approach to tasting cider and cider lexicon as well as the provision of training to cider-makers and removal of barriers to the expansion of the Irish craft cider industry.

Nearly three hundred years ago, in 1737, The Dublin Society proclaimed the difficulty in describing the taste of cider when stating that "... 'tis hard matter to describe to the Palate, and set the Rules to Taste" (p.149). This difficulty continues today. The Dublin Society also recognized the complexity of different cider styles when describing "the endless Variety of different Flavours to be found in different Kinds of Cyder". In Ireland today, these different and complex ciders are not being highlighted and offered to the public. A basic, simple style is what the public understand as cider. This matters. Nearly three hundred years ago, not only did The Dublin Society recognize the importance of cider to the Irish society, but they also recognized that the complexity and variations of flavours were "reckon'ed an Advantage". By this, it was meant that the potential complexity of cider was an economic advantage, an opportunity to compete commercially with other beverages of complexity, such as wine, and distinguish cider from simple beverages. Unfortunately, this economic opportunity and commercial advantage has not yet been fully seized by the modern Irish craft cider industry.

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Appendix

Appendix A: Informed Consent Form

INFORMATION ABOUT MY RESEARCH

1. **Title of the study:** Adopting a structured approach to cider tasting within the Irish craft cider industry.
2. **Introduction:** This study will analyze the factors influencing the adoption of a structured approach to tasting cider by cider producers *and associated lexicon* within the Irish craft cider industry.
3. **Procedures:** A Structured Approach to Tasting Cider will be created by the researcher and provided to participating cider producers within the Irish craft cider industry. The researcher will perform semi-structured interviews with those producers, and analyze those interviews to identify themes which are influencing the adoption of a structured approach to cider tasting within the Irish craft industry. Supplementary interviews and analysis may also be performed with other parties from an international perspective. Interviews may be in person or over an enabling-technology platforms and will last no longer than two hours.
4. **Benefits:** Participants producers will engage a novel approach to tasting, reviewing and comparing the cider which they produce and also consider the use of this systematic approach to tasting cider within their craft industry.
5. **Risks:** We do not anticipate any risks from taking part in the research.
6. **Exclusion from participation:** Participants within this research must be involved in craft cider production on the island of Ireland or involved in the production or review of craft cider internationally.

7. **Confidentiality:** Your identity will remain confidential. Your name will not be published or disclosed to anyone outside the research team.
8. **Compensation:** This study is part of an MA in Gastronomy and Food Studies. No participants are paid for their input.
9. **Voluntary Participation:** You are voluntarily participating in this research thesis. You may withdraw at any time. If you decide not to participate, or if you withdraw, you will not be penalized in any way.
10. **Stopping the study:** You understand that the researcher may withdraw your participation in the study at any time without your consent.
11. **Permission:** The content of this study has been agreed in with my appointed thesis supervisor.
12. **Data protection:** Any information gathered from you as part of this study will be anonymized – your name (or other identifying material) will not appear in the final thesis. The completed interviews will be stored in a locked filing cabinet in a secure fashion and data from the interviews will be uploaded onto a computer that is encrypted and password protected. That electronic data will be kept for a period of 2 years.
13. **Further information:** You can get more information or answers to your questions about the study, your participation in the study, and your rights from Richie Brady who can be contacted at the following email address. If the study team learns of important new information that might affect your desire to remain in the study, you will be informed at once.

INFORMED CONSENT FORM

Research Involving Human Participants

Project title: Barriers to the Adoption of a Structured Approach to Tasting Cider by cider producers within the Irish Craft Cider industry.

Principal Investigators: Richie Brady (Supervisor: Dr. Brian Murphy)

BACKGROUND:

For this study, participants will partake in semi-structured interviews concern the factors influencing the adoption of a structured approach to tasting cider and associated lexicon within the Irish craft cider industry.

All of the information gathered from you will be anonymized – you will not be identifiable in the final report.

Participant Declaration:

Tick yes or no as appropriate

I have read or have had the information sheet read to me and that I understand the contents.	Yes	No
I have been given an opportunity to ask questions and am satisfied with answers.	Yes	No
I consent to take part in the study.	Yes	No
I understand that participation is voluntary and that I can withdraw at any time.	Yes	No

I understand that withdrawal will not affect my access to services or legal rights.	Yes	No
I consent to possible publication of results.	Yes	No
I (the participant) give my permission to: Use the data obtained from you in other future studies without the need for additional consent.	Yes	No
Researcher Declaration: <i>Tick yes or no as appropriate</i>		
I have explained the study to the participant	Yes	No
I have answered questions put to me by the participant about the research	Yes	No
I believe that the participant understands and is freely giving consent	Yes	No

Participant's Statement:

I have read, or had read to me, this consent form. I have had the opportunity to ask questions and all my questions have been answered to my satisfaction. I freely and voluntarily agree to be part of this research study, though without prejudice to my legal and ethical rights. I understand I may withdraw from the study at any time. I have received a copy of this consent form.

Participant's Name:**Contact Details:**

Participant Signature:

Date:

Researcher's Statement:

I have explained the nature and purpose of this research study, the procedures to be undertaken and any risks that may be involved. I have offered to answer any questions and fully answered such questions. I believe that the participant understands my explanation and has freely given informed consent.

Signature:

Date:

Appendix B: Interview Questions

1. What is your understanding of the public's knowledge of the different style of cider? For example: Spanish, French or West Country-English styles.
2. Is there an Irish-style of cider?
3. What is your understanding of the public's perception of when to enjoy cider?
4. What is your view as to cider market positioning relative to other drinks such as white wine or different beer styles?
5. If you are a cider maker, do you offer cider mill tours? Why?
6. If yes, have you availed of the recent on-site cider-maker sales licence? (new licenses available under Intoxicating Liquor (Breweries and Distilleries) Act, 2018). Why?
7. What is your view on adopting a structured (templated) approach to tasting ciders? (similar to the approaches available for wine and spirits).
8. What is your view of the attached potential cider tasting template?
9. Would you consider using a templated structured tasting approach during a cider mill tour - bringing visitors / tourists through it?
10. How do you think such an approach would influence or change the tourist's experience?
11. What are the industry barriers (real or perceived) to adopting such a tasting approach generally and specifically on cider mill tours?
12. What would you consider as the beneficial outcomes of adopting such a formal tasting approach for the cider mill?
13. In your view, how would the adoption of a formal tasting approach (and /or takeaway card) enhance the visitor experience?
14. How do you see the confusion as to the general cider language/lexicon around styles being resolved?

Appendix C: Systematic Approach to Tasting Cider

Systematic Approach to Tasting Cider, Cider Wines & Perry

STRUCTURE								
Appearance								
Clarity:	Clear	Cloudy	Opaque					
Intensity:	Pale	Medium	Deep					
Colour:	Straw	Yellow, Gold	Amber, Copper	Pink	Red	Purple	Tawny	
Other:	Still	Petillant	Sparkling					
Aroma								
Condition:	Clean	Flawed						
Intensity:	Light	Medium (- to +)	Pronounced					
Characteristics:	See Aroma & Flavours							
Palate								
Perceived Sweetness Level:	Dry	Semi-dry	Semi-sweet	Sweet				
Perceived Acidity Level:	Light	Medium (- to +)	High	Describing the nature of Acidity <i>Examples: Dull, Sour, Crisp, Bright, Vibrant, Racing Vinegary</i>				
Perceived Tannin Level:	Light	Medium (- to +)	High		Describing the nature of Tannin <i>Examples: Soft, Drying, Astringent (Black Tea), Puckering Bitter, Course</i>			
Alcohol Level:	Light	Medium (- to +)	High					
Body:	Light	Medium (- to +)	High					
Characteristics:	See Aroma & Flavours							
Flavour Intensity:	Light	Medium (- to +)	Pronounced					
Other Observations:	minerality, chalk, slate	steel, metal	oily, clayey, mouth coating	chemical, sulphur				
Level of Complexity:	Low	Medium	High					
Finish:	Short	Medium (- to +)	Long					
Conclusion								
Balance:	Opinion of balance or imbalance between components: acid, tannin, flavour intensity, alcohol, other							
Other factors	Opinion of Length, Intensity, Complexity, others							
Opinion of Quality:	Faulty	Drinkable	Good	Very Good	Outstanding			
								R.Brady, 2020

Systematic Approach to Tasting Cider, Cider Wines & Perry

AROMAS & FLAVOURS			
Groupings		Suggestions	Associations
Primary Fruit	Green Fruit	Gooseberry, apple (green, red, etc), pear, quince, pear drops, skin or juice	
	Citrus Fruit	Lemon, lime, grapefruit, orange, mandarin, tangerine - juice, zest, or peel.	
	Stone Fruit	Peach, apricot, nectarine, skin or juice	
	Tropical Fruit	Mango, guava, banana, lychee, pineapple, passion fruit, melon	Potentially flavoured / fruit additions
	Red Fruit	Strawberry, raspberry, red cherry, red currant, watermelon, cranberry,	Potentially flavoured / fruit additions,
	Black Fruit	Blackberry, bramble, blueberry, black cherry, black current	or potentially cider wine related
Other primary crops	Herbaceous	Green pepper (capsicum), grass, hay, asparagus	
	Herbal	Mint, medicinal, eucalyptus, lavender, fennel, dill, dried herbs	
	Floral	White flowers (including acacia, honeysuckle, chamomile, elderflower), Red flowers (including violets, roses)	Potentially flavoured / fruit additions
	Hops	Hops, beer	Favoured/additions
Secondary	Fermentation(s) Related	Black tea, earthy, smoky bacon, farmyard, smoke, white pepper, peat	
		Nail varnish, volatile acid, fresh paint, green olive, fusel, wine	
		Bread, toast, pastry dough, biscuit	Yeast related (lees, autolysis)
		Butter, cream, cheese, yogurt	Malolactic fermentation related
	Barrel related	Wood, vanilla, cloves, coconut, cedar,	Wooden barrels related
		Sherry, whiskey, wine, bold spiciness	Aged in previously used barrels
	Nuts, Ageing	Almonds, hazelnut, walnut, coffee, chocolate, mushroom	Potentially age related, concentration, warmth, additions
	Dried Fruit	Raison, fig, prune, other dried fruit	Age related or additions
	Sweetness	Cinnamon, caramel, toffee, Molasses, resin White sugar, brown sugar	Potentially age related or additions
		Honey, honeycomb, honeysuckle, nectar	Potentially additions (honey for 'cyser') Ice Cider & concentrated natural sweetness
Other	Other	Petrichor (fresh rain on dry ground)	
	Other additions	Other additions/flavours including chilli and ginger	Favoured/additions
	Minerality	Slate, granite, mineral, steel,	

R Brady 2020

Appendix D: Initial Identification of codes from Interview Transcripts

Interviewee	Quote	Initial Code
Interviewee_1	The public's perception of style of cider in Ireland is very poor to start out with. They don't understand cider as a unique product of its own.	Public's Lack of Cider Knowledge.
Interviewee_1	suffer from what I call the Bulmers' effect.	Bulmers' Dominance.
Interviewee_1	The level of knowledge doesn't exist.	Public's Lack of Cider Knowledge.
Interviewee_1	drink in Summer and that perception of cider still remains today.	Summer Drink. Public's Perception.
Interviewee_1	The manufactured [cider industry] are now starting to get over the summer-only effect.	Industrial Cider. Summer Drink.
Interviewee_1	Hot summers day, that's the perception at the minute	Summer Drink. Public's Perception.
Interviewee_1	Yeah, that comes down to the point of educating the consumer. It's trying to educate the consumer to marry styles or ciders of different styles with food. it's about educating the consumer to marry the style of cider with the food.	Educating the Public. Broadening the Cider Market. Food Pairings. Cider can be Complex.
Interviewee_1	I firmly believe that our cider making knowledge is very poor.	Producers' Lack of Knowledge.
Interviewee_1	we haven't been proactive enough in developing a wide enough range for the consumer to try out but married to that is the educational side.	Lack of Proactivity. Efforts to Broaden Range of Styles. Educating the Public. Broadening the Cider Market.
Interviewee_1	The consumer doesn't know what to do with it, once they get it. Craft is definitely struggling on that one. Yeah.	Public's Lack of Cider Knowledge. Food Pairings. Challenge.
Interviewee_1	So, the first is a duty problem. The problem is making, shall we say, high quality cider in a 750ml bottle, that is pure natural, fermented to their natural [level of alcohol]. We'd be in the category where we could compete with a white wine and compete very well.	Excessive Duty on Cider. High Quality Cider. Positioning towards Wine. Competing with Wine.

Interviewee	Quote	Initial Code
Interviewee_1	<p>Number one: duty. Number 2 that we don't have the expertise in Ireland to do that, we don't have the variety of apples.</p> <p>We don't know how to deal with those apples, to extract out the real good aromas, the real good mouthfeel, the flavours, the long finish.</p>	<p>Excessive Duty on Cider.</p> <p>Producers' Lack of Expertise.</p> <p>Few Available Cider Apple Varieties.</p>
Interviewee_1	We're looking at ciders going forward, the premium-isation of cider should be to come up.	<p>High Quality Cider.</p> <p>Improving Quality.</p>
Interviewee_1	<p>Doesn't see an opening.</p> <p>The market value is too small.</p> <p>The value of the market for that doesn't exist at the minute.</p>	<p>Small Market.</p> <p>Commercial Realities.</p>
Interviewee_1	<p>The craft ciders, don't get qualify for that, the same rebate.</p> <p>You have a can of beer it is 2 euros 50 and beside it is a can of cider [for] three euros, thirty.</p> <p>It's a complete distortion of the market from that point of view.</p>	<p>Competing with Beer.</p> <p>Market Positioning.</p> <p>Excessive Duty on Cider.</p> <p>Cost of Production.</p> <p>Beer Advantage.</p>
Interviewee_1	First problem with cider classification, cider style is ... is that the cider maker, first of all, does not know how to identify a characteristic in the cider.	<p>Difficulty Describing Taste.</p> <p>Challenge of Flavour Identification.</p> <p>Producers' Lack of Expertise.</p>
Interviewee_1	'No, that's vanilla in there, that's not oak at all. That's chestnut'.	<p>Difficulty Describing Taste.</p> <p>Challenge of Flavour Identification.</p> <p>Confusion.</p>
Interviewee_1	<p>And I think that the Irish cider makes are not knowledgeable.</p> <p>we don't have enough knowledge in identifying both positive and negative flavours and aromas in cider.</p>	<p>Producers' Lack of Knowledge.</p> <p>Difficulty Describing Taste.</p> <p>Challenge of Flavour Identification.</p> <p>Confusion.</p>
Interviewee_1	one of the weaknesses that will transpire from that approach is that the education of the producer to be able to identify the characteristics that are contained within the drink.	<p>Producers' Lack of Knowledge.</p> <p>Difficulty Describing Taste.</p> <p>Challenge of Flavour Identification.</p> <p>Confusion.</p> <p>Education.</p>
Interviewee_1	Ethyl Acetate. Would they be able to identify it?	<p>Challenge of Flavour Identification.</p> <p>Faults.</p>

Interviewee	Quote	Initial Code
	What was the problem that created that off-aroma and how you do identify it?	Education.
Interviewee_1	It's nearly like muscle memory. You have to not alone memorise the taste and aromas, but you've got to connect to the descriptive of the words.	Education. Challenge of Flavour Identification.
Interviewee_1	We're too young. The industry in Ireland is too young.	Immaturity of Irish Craft Industry.
Interviewee_1	There's no industry barriers to adopting one - it's the fact that there's not one out there to adopt, that's Irish. We can adopt the Europeans, or the Americans or the British or the French or whoever, but there's not one there to adopt. If you create one, then there's one to adopt.	No agreed Cider Lexicon. No Agreed Standard to Analyse and Describe. Lexicon defining Irish Style (assumed).
Interviewee_1	Adopting such a tasting approach generally and specifically on cider, you know, it's not there. [There's] lots of lexicons...But they're not structured. Their tasting approach is not structured - we don't have a structured approach.	No agreed Cider Lexicon. No Agreed Standard to Analyse and Describe. Lack of Standardisation. Lack of Structured Approach to Tasting.
Interviewee_1	Look, we don't have a structured tasting approach... 'cos I think the industry is too young. Not too young; it that we haven't developed it. No one is taking the time to sit down and develop it.	Lack of Structured Approach to Tasting. Immaturity of Irish Craft Industry. Effort Required.
Interviewee_1	So, it comes back to the question of education, of identifying the characters that are inside, inside in the drink.	Education. Challenge of Flavour Identification.
Interviewee_1	Consumer education and, then, developing that into marrying that into profiles of cider and marrying food choices or food pairing. It would be very beneficial. Also, from a competition point of view, from the whole lot would really come through on that.	Educating the Public. Improving the Market. Lexicon defining Irish Style (assumed). Pairing with Food. Improving the Industry.
Interviewee_1	First part of that is in Ireland and the greater body, the public - there is no lexicon - and the style is Bulmers style.	No agreed Cider Lexicon. Bulmers' Domination. Public Perception.
Interviewee_1	The issue is that there is not standardised approach to the styles of cider.	No Agreed Definition of Styles.

Interviewee	Quote	Initial Code
Interviewee_1	So, if you want to solve the issue of the confusion, we have to solve the riddle of [a] standardised approach to the tasting of cider to give us the answers to develop the styles.	Confusion. Lack of Structured Approach to Tasting. No Agreed Definition of Styles.
Interviewee_1	to get rid of the confusion, to establish the styles, will take a structure approach	Confusion. Lack of Structured Approach to Tasting. No Agreed Definition of Styles.
Interviewee_1	but also take the education of the producers to understand what a taste is and to understand the difference between tastes.	Education. Challenge of Flavour Identification.
Interviewee_1	You put 10 of us in a room and you give us all the same bottles of cider or tastes of cider. I guarantee you that you'll get 10 different answers.	Difficulty Describing Taste. Education. Challenge of Flavour Identification.
Interviewee_1	There's very few people in the population with the required taste profile analysis [ability] in their mouths, Most of us are not educated enough to understand it.	Education. Challenge of Flavour Identification. Challenge of Structural Analysis.
Interviewee_1	if you never went to school and never had anyone to tell you green, yellow, gold colour - cos that's the words you put on it. Same with analysing the cider.	Difficulty Describing Taste. Education. Challenge of Flavour Identification.
Interviewee_1	If people are analysing the cider but they're not trained in identifying the right taste profile with the right description - how are they going to know?	Difficulty Describing Taste. Education. Challenge of Flavour Identification. Challenge of Structural Analysis.
Interviewee_1	I don't have the, what's the word, let's say knowledge...I don't have that there sitting in my brain to put against what I'm tasting.	Difficulty Describing Taste. Challenge of Flavour Identification.
Interviewee_1	I'm able to identify the off-aroma's and the off-taste more readily than I can identify the positive aromas and the positive tastes.	Challenge of Flavour Identification.
Interviewee_1	I'd be scratching my head, like, and I say '[expletive] it, I don't get any of that!' Now, I'm slowly... I know oak and I know brambly...But to develop all of that, Richie, is a challenge.	Challenge of Flavour Identification.
Interviewee_1	...one of the great areas would be if you could organise a course, say, on identification of flavours in, in alcohols both positive and negative. You know what I mean? Could you run a course like that?	Challenge of Flavour Identification. Education

Interviewee	Quote	Initial Code
Interviewee_1	Let's say, for cider-makers or for general public, so that when they get a glass of cider, you'd have in that glass of cider a whole pile of off-flavours and then a whole pile of positive flavours, positive flavours. That would then form an education and the likes of myself would then pay you so many hundred of euros to go to your course ... to, to learn the right identification to go with it.	Challenge of Flavour Identification. Education
Interviewee_1	To get rid of the confusion, the first stage, is to start, as you're doing, with a standard approach to tastings profiles. And the second part to tasting profiles is standardising the knowledge within the people doing the [tasting] profiles.	Confusion. Structured Approach to Tasting. Education. Importance of Standardisation.
Interviewee_1	I think that the level of expertise and product diversification and product premium-isation within the cider industry within Ireland is not good enough.	Producers' Lack of Expertise. Lack of High Quality Cider. Sameness within Irish Cider. Failure.
Interviewee_1	It's immature, the industry. In Ireland, it's the population, we just don't have enough people. You understand me? We're struggling to get volume in people.	Immaturity of Irish Craft Industry. Small Market. Population. Struggle.
Interviewee_1	So, part of our problem is the population - we don't have enough of a footprint of people to exploit, to develop the industry.	Population. Small Market. Struggle
Interviewee_1	What I'm saying, it's about the diversification of cider and the ways, the styles of cider. I think, I mean, we're not doing it.	Sameness within Irish Cider. Lack of Diversification.
Interviewee_1	But the rest of us are just not at the races.	Differing Skills Levels.
Interviewee_1	There's the problem here in Ireland - we're not at the races yet.	Differing Skills Levels. Immaturity of Irish Craft Industry.
Interviewee_2	A little bit difficult for a cider maker, when you put so much effort into it and there is very little understanding of what a craft cider is.	Public's Lack of Cider Knowledge. Frustration. Effort from Craft Cider.
Interviewee_2	It's like we're very much the poor relation of the craft brewers. Possibly there is a little bit of an opening for cider to come in.	Grouped with Beer. Timing. Craft Cider Movement.

Interviewee	Quote	Initial Code
Interviewee_2	but all of the work that we put into our ciders and the ciders are so different. They're all completely different. We all have different styles ... and none of this is picked up by the consumer.	Producing Different Styles. Creative Efforts. Public's Lack of Cider Knowledge. Frustration.
Interviewee_2	We are really minuscule in terms of the overall long-drinks market but it is annoying. All of the effort you put in.	Few Craft Producers. Small Market. Weakness of Craft Producers. Creative Efforts. Frustration.
Interviewee_2	What they're really saying is 'I don't like Bulmers'. [It was a] very cheap drink which wasn't allowed in pubs. Like. it was a vagabond's drink. It was just drunk in ditchesyour down-and-outs drank it.	Bulmers' Dominance. Cheap. Rough. Lack of sophistication. Not Respected. Not Acceptable.
Interviewee_2	We would be very much of the opinion that a cider could be a close cousin to wine.	Positioning towards Wine.
Interviewee_2	That's an interesting question! Is there one? They're all so different.	Producing Different Styles.
Interviewee_2	Irish cider would have a lot of predominately eating apples in it. You'd have an East English coast style - I'd say that would be more predominant in Ireland.	Sameness with Craft Cider. Lack of Diversification. Few Available Cider Apple Varieties.
Interviewee_2	The definition between a dry and medium is...a kind of medium dry. And so on and so on. They're all so different.	Producing Different Styles.
Interviewee_2	The public perception is to enjoy it during the summer	Summer Drink. Public Perception.
Interviewee_2	The Irish consumer or the Irish cider drinker is miles behind that - agh, no.	Public's Lack of Cider Knowledge. Frustration.
Interviewee_2	Where is the cider market? In Ireland and the consumer perception of it? Those two pieces are in education.	Public's Lack of Cider Knowledge. Education. Public's Perception.

Interviewee	Quote	Initial Code
Interviewee_2	The market is not there.	Small Market. Commercial Realities.
Interviewee_2	But there was so much work put into the craft beer. But that was going on for 10 years.	Beer Advantage.
Interviewee_2	But in terms of sales, commerciality, it ain't there. and the market is not mature enough for that, at all.	Need to Public to Buy. Immaturity of Irish Craft Market.
Interviewee_2	It is very important that we have a structured systematic approach to tasting. That's important because then we do the same... like, in the real word, making cider, it's difficult, very difficult to get consistency.	Importance of Standardisation. Importance of Structure. Consistency. Difficulty.
Interviewee_2	So, what we need to assess all of that... just a constant 'same structure, all of the time, so that we can assess what the difference is in it'. So it would be critical to have the same system.	Critical Need. Importance of Standardisation. Importance of Structure. Consistency. Assessing and Comparing.
Interviewee_2	Where would you use it in the industry? You're talking of collaboration between different cider makes really	Improving the Industry. Collaboration.
Interviewee_2	We want the consumer to be more educated to craft cider and see the difference in it.	Public's Lack of Cider Knowledge. Educating the Consumer. Increasing Cider Knowledge. Broadening the Cider Market.
Interviewee_2	The right place to start is the consistency of the terminology of what ciders are. The lexicon.	Consistency. No agreed Cider Lexicon. Importance of Standardisation. Agreeing Lexicon.
Interviewee_2	I don't think there's a problem with a style, it's just because the terminology and how people describe each of their ciders is so erratic. So individual.	No agreed Cider Lexicon. Difficulty Describing Taste. Importance of Standardisation. Subjectivity.

Interviewee	Quote	Initial Code
Interviewee_3	the size of the market that we have, the domestic market, it is too small	Small Market
Interviewee_3	to make viable businesses you need a consumer base that has enough people who are interested in esoteric differing cider styles to make it a viable one. I think that is one of the biggest challenges which we face as a sector.	Small Market. Commercial Realities. Public's Lack of Interest. Sameness within Irish Cider. Lack of Diversification.
Interviewee_3	We are going to find it very difficult to progress that until such time that we have a more educated consumer, a larger customer base and those two things are very important.	Difficulty. Public's Lack of Cider Knowledge. Education. Larger Market.
Interviewee_3	We have to tailor our style to what the bulk of consumers in the island recognise as cider - which is limited.	Commercial Realities. Sameness within Irish Cider. Lack of Diversification. Restricted in Creativity. Power of Market Majority
Interviewee_3	It's a testament to the success of C&C. You've got to appeal to the lowest common denominator and that is what people identify cider as, unfortunately.	Bulmers' Dominance. Lowest Common Denominator. Public's Lack of Cider Knowledge. Need to Public to Buy. Frustration.
Interviewee_3	Poor and vague. It's poor, generally it's poor.	Public's Lack of Cider Knowledge
Interviewee_3	It is in its infancy in its modern manifestation... a time span of 10 years, which is a very short period of time... A lot of historical knowledge and expertise... was lost.	Immaturity of Irish Craft Industry. Lost Cider Knowledge.
Interviewee_3	The vast majority of the people who are now making cider in Ireland, went and got trained, usual in the Cider Academy in the west of England. They're not as adventurous as perhaps they might be.	Same Training. Lack of Creativity. Sameness within Irish Cider.
Interviewee_3	[From a] historical perspective as well as to the structure of education which we all received... all by the same people.	Same Training. Lack of Creativity. Sameness within Irish Cider.

Interviewee	Quote	Initial Code
	Out of that, you're never going to find the sort of erratic quality issues. I don't think that is much of an issue for most Irish cider makers.	Lack of Diversification.
Interviewee_3	I think we do have a style. It's early days. It's very mainstream and what we need to do is stretch our wings. I do think we have a style. It's in its infancy and I think we'll grow. I hope we'll grow.	Changes have started. Immaturity of Irish Craft Industry. Creating an Irish Style.
Interviewee_3	The reason we called it tawny, was so that people could understand where it sat in the food chain	Distance to Food.
Interviewee_3	There was an awful amount of cider manufactured back in the 16 hundreds, 17 hundreds, 18 hundreds. It was lost with the advent of beer, unfortunately.	Lost History.
Interviewee_3	When the sun comes out and it's warm, unfortunately. The challenge for us is trying to soften the cyclical nature of it a bit. We would do 70% of our revenue in three months of the year.	Summer Drink. Need to Public to Buy. Challenge. Changing the Market Perception.
Interviewee_3	His response was 'why bother? Why not capitalise on the three months where people go mad and forget about the rest of the year'.	Dis-interest of Large Corporates. Summer Drink.
Interviewee_3	We need to box a little smarter and I think broaden the appeal of beverages	Broadening the Cider Market. Creative Thinking.
Interviewee_3	We're definitely put in the beer category, which is a great sham. We shouldn't be in the beer category. The industrial producers certainly should be.	Grouped with Beer. Frustration. Incorrectly Placed. Industrial Cider.
Interviewee_3	...it is bankrolled by the mainstream classic ciders that we produce, to really move into the wine space and that's where we should be.	Commercial Realities. Positioning towards Wine. Changing the Market Perception.
Interviewee_3	The naturally high sugars and therefore greater preservation ability of wine. Same process as making wine and that's how it should be treated	Positioning towards Wine.
Interviewee_3	Real cider in my opinion is made from fresh juice.	Real Cider
Interviewee_3	[It] got replaced by beer. Beer, you can make, any time of year.	Advantages of Beer.
Interviewee_3	[It's] definitely something to be welcomed. I think the devil is in the detail because there are so many different styles out there.	Breath of Styles.

Interviewee	Quote	Initial Code
		Challenge. Cider can be Complex.
Interviewee_3	And how you can do it in an objective manner that will not only give the terminology to the consumer to describe what they are drinking but also accurately reflect the different types of apples, the different types of fermentation?	No agreed Cider Lexicon. Subjectivity. Difficulty Describing Taste. Cider can be Complex. Breath of Styles.
Interviewee_3	So, it's difficult to do it - to keep on a level playing field for all of the different ciders. I think, it's a great idea. In principle, I think it is fantastic.	Challenge. Breath of Styles. Cider can be Complex. Positivity to Proposed Tool.
Interviewee_3	It is such a huge subject-matter, it really is.	Challenge. Breath of Styles. Cider can be Complex.
Interviewee_3	I think that is the essential building block to achieve where I think this will serve greatest purpose	Essential Tools. Improving the Industry.
Interviewee_3	And I think that is the biggest challenge that we face - which is taking all of those elements which you are starting to break down here, across all of the cider styles and then condensing them into 10 words, not even, 5 words for appearance, 5 words for aroma and maybe 10 words for palette and that will be about it.	Challenge. Breath of Styles. Cider can be Complex. Tool needs to be Quick and Easy.
Interviewee_3	[America], they do all have their own terminology, and you do end up with that sort of confrontation, where they're saying 'what are you talking about? that relates to this over there.	No agreed Cider Lexicon. Confusion. American Controversy.
Interviewee_3	You're codifying and making it a more universal term to describe all the different styles rather than always bringing it back to the apple variety. And what it will do is take away the competition,	Creating Universal Terms. No Agreed Definition of Styles. Avoiding coupling to apple varieties or style. Describing Taste.
Interviewee_3	And what it will do is take away the competition. The AICV is playing catch up. It's playing catch up because they're not showing initiative, or they haven't up until the Cider Association of the States showed them up.	Political Power. Conflicts of Interests. Big Corporates.

Interviewee	Quote	Initial Code
	Whereas the AICV, has been sitting on its laurels, along with C&C and Heineken and all those large cider groups. It quite interesting to watch the politics, internally.	Big Cider. Lack of Initiative.
Interviewee_3	If you can provide that universally applicable terminology, it'll avoid the sort of competitive element where they're forever trying to pull one over one another. My interpretation is that actually they want to use their own resources and for this sort of project to be done as part of their own agenda and not that by the American one.	Creating Universal Terms. Power. Control. Conflicts of Interests. Big Corporates. Competition.
Interviewee_3	So, I think if [we] can provide terminology which is universal - it will get around all of that. I think that is a very powerful argument, particularly if they're coherent and logical.	Creating Universal Terms. Avoiding coupling to apple varieties or style. Describing Taste. Power of Universal Terminology. Avoiding Political Conflicts. Coherent and Logical Standards.
Interviewee_3	And then, we have to be taken seriously by the sommelier and wine paternity - which is difficult because the industrial brands are not interested in this at all. They don't understand it.	Lack of Understanding. Positioning towards Wine. Industrial Cider. Frustration. Not Taken Seriously.
Interviewee_3	Heineken have really struggled to fit that type of product profile into their commercial strategy. It's a mentality, it's a culture issue. They don't get it, they just can't get it.	Big Brewers. Completing Beer's Product Line. Misplaced Cider. Struggle. Big Corporate Lack of Understanding. Cultural Misunderstanding. Corporate Mentality.
Interviewee_3	Cooperatives have loads of farmers producing loads of apples, which have got to be sold. It is also a corporate mentality. 'This is what we do'.	Corporate Mentality. Big Co-operatives. Need to Public to Buy.

Interviewee	Quote	Initial Code
Interviewee_3	large organisation . It's very difficult to change that.	Corporate Mentality.
Interviewee_3	[It] was run[ning] smaller volumes at higher margin. That is something that the big industrial cider producers haven't cracked onto.	High Value Product. Big Cider. Corporate Mentality. Misunderstanding Cider.
Interviewee_3	It's always cider is secondary, especially to the big brewers. So, cider is always a secondary thing within beer groups and the majority of the cider makers.	Secondary Activity. Beer Companies in Cider. Big Corporates. Industrial Cider.
Interviewee_3	I'm not very good at verbalising what I taste. If you watch any good sommelier or wine expert, they have their finger on all the pulses.	Difficulty Describing Taste. Differing Skill Levels. Positioning towards Wine.
Interviewee_3	The brewers won'd want it... I mean this is the biggest problem we have!	Beer Companies in Cider. Resistance from Big Beer. Barrier.
Interviewee_3	We are little piddlers... just like IBEC in Ireland, they want the small producers to improve their legitimacy when it comes to speaking to legislative bodies... They really don't give a [expletive] and aren't interested in the slightest. But we are good window dressing. And ... the reason being, therein lies a massive conflict and it's the same at the European level.	Powerlessness of Small Producers. Used as Window Dressing. Lack of Interest. Political Power. Conflicts of Interests. Institutional Conflicts. Lack of Genuine Support.
Interviewee_3	If you introduce this, the consumers - the concern, I think, would be that the consumers see that the Emperor is not wearing any clothes.	Big Cider Fear. Big Corporates Fear. Fears of Being Found Out. Fear of Public Knowledge. Commercial Realities. Enlightening the Public.
Interviewee_3	The vast majority of them are brewers. It's made like beer.	Beer Companies in Cider. Produced like Beer.

Interviewee	Quote	Initial Code
Interviewee_3	The tide is going to go out with your [<i>waves template systematic approach</i>], with those descriptors and they're going to go 'hang on a sec'! They all taste the same.	Big Cider Fear. Big Corporates Fear. Fears of Being Found Out. Fear of Public Reaction. Commercial Realities. Enlightening the Public.
Interviewee_3	If people knew what went in... And I think that's what they're concerned about. They're endeavouring to swap various ingredients. Massive amounts of investment, nominally for the industry, but really for the big producers to lobby the EU	Industrial Cider. Adding Ingredients to Cider. Big Corporates Fear. Fear of Labelling. Fear of Public Reaction. Commercial Realities. Enlightening the Public. Political Power. Lobby Power. Money.
Interviewee_3	In some senses it might give more confidence to cider makers to push the envelope to make more esoteric ciders. If they can begin to educate consumers and consumers become more interested in more esoteric things. Then, I could see it enabling them to do that. So, it might give people the confidence to push the boat a little further if they can point to that. I think, it adds to the legitimacy of the product that you are pushing out.	Giving Confidence. Efforts to Broaden Range of Styles. Creative Efforts. Educating the Public. Improving the Market. Legitimising Craft Cider.
Interviewee_3	for example, but [describing] whether you appreciate it or not and why you appreciate it and feeling comfortable expressing that ultimately being able to point out there is a lot more to cider than most people think.	Ability to Describe Taste. Giving Confidence. Legitimising Craft Cider. Education.
Interviewee_3	But my worry, at the current moment, is that there wouldn't be enough diversity within each cidery to justify, fully benefit from the clusters and descriptors which you are providing.	Sameness within Irish Cider. Lack of Diversification.

Interviewee	Quote	Initial Code
Interviewee_3	<p>We, as a sector, if this comes about, would have to be more adventurous and goes back to what I was saying earlier.</p> <p>Perhaps it will make us slightly more courageous in pursuing different styles.</p>	<p>Restricted Creativity.</p> <p>Giving Confidence.</p> <p>Sameness within Irish Cider.</p> <p>Lack of Diversification.</p>
Interviewee_3	<p>I think one of the other biggest challenges we have is, to be perfectly honest with you, which is the ... A lot of, unlike the beer makers, a lot of the cider makers are either apple farmers or hobbyists.</p> <p>To your advantage is that as they don't have any real skin in the game, there is no risk to them to apply [it].</p>	<p>Secondary Activity.</p> <p>Need to Public to Buy.</p>
Interviewee_3	There is going to be consolidation out of the whole Covid-19 thing.	<p>Covid.</p> <p>Changes within Industry.</p>
Interviewee_4	We've never had access to what I would call proper cider which is full of juice, lots of natures' characteristics about it.	<p>Public's Lack of Cider Knowledge.</p> <p>Cider can be Complex</p>
Interviewee_4	<p>They literally would look at you as though you had two heads.</p> <p>They've just literally one offering.</p>	Public's Lack of Cider Knowledge.
Interviewee_4	<p>My whole thought around cider - make it smooth, make it easy to drink.</p> <p>I'm really trying to bring the masses into my cider rather than the guy, you know, the hair shirt brigade</p>	<p>Commercial Realities.</p> <p>Uncomplicated Cider.</p>
Interviewee_4	<p>The public don't have a perception, I don't think, of either style or when to drink.</p> <p>The majority of people doing that want, literally, something that passes down the back of their throat, without even thinking about it.</p>	<p>Public's Lack of Cider Knowledge.</p> <p>Public's Lack of Interest.</p>
Interviewee_4	It wouldn't be a particularly commercial cider in Ireland.	Commercial Realities.
Interviewee_4	In general, as you get older, you're looking for something that gives you a bit more value for money in your flavour.	<p>Value for Money.</p> <p>Preferences Changing with Age.</p>
Interviewee_4	Definitely a way to market cider, that it has the the attributes of a white wine with half the alcohol to it... [or for] someone who's looking for a beverage with a meal.	<p>Pairing with Wine.</p> <p>Pairing with Food.</p> <p>Improving the Market.</p>
Interviewee_4	We should be able adapt people's perception to it and then then enjoy it with food.	<p>Pairing with Food.</p> <p>Improving the Market.</p>
Interviewee_4	The public are really stupid. The public haven't got a clue why we drink what we drink. They have no concept that certain drinks go with certain things. No concept.	<p>Public's Lack of Cider Knowledge.</p> <p>Food Pairings.</p>

Interviewee	Quote	Initial Code
		Drinking without thinking.
Interviewee_4	99.9% of people do not have a clue as to why they drink anything. Therein lies the problem to a certain extent.	Drinking without thinking.
Interviewee_4	It's very, to me ,it's very important that I've got my clear flavours, recognisable from one year to the next. So, I'm not looking for the single variety, wild ferment which is going to give you something beautiful this year and interesting next year.	Individual Producer's Style and Ethos
Interviewee_4	it is useful to make yourself appear like you've got a very complex product or a very quality product.	Positivity to Proposed Tool. Cider can be Complex. Quality Cider.
Interviewee_4	I have to say, I've often heard cider-makers describe their own product and when you drink it, it is like like, chalk and cheese, it is nothing like it.	No agreed Cider Lexicon. No Agreed Standard to Analyse and Describe.
Interviewee_4	People can get a real a real blind spot of, like, their own products that make everything is wonderful.	Producers' Own Prejudices. Inappropriate Praise of Own Cider.
Interviewee_4	You have to have standards.	Need for Standards.
Interviewee_4	By telling people that is wonderful, it's amazing how much of that you can sell.	Inappropriate Praise of Own Cider. Commercial Realities. Sales Description Tactics.
Interviewee_4	And again, therein lies a problem for a craft point of view. Someone heighten the product. That sounds wonderful and obviously it's not.	Damaging the Craft Market. Commercial Realities. Sales Description Tactics.
Interviewee_4	One thing that you need alongside a flavour list is an actual test profile, as well, as something that you could put a drop of a concentrate on a bit of cotton wool and waft it in the air and actually get flavour.	Difficulty Describing Taste. Challenge of Flavour Identification.
Interviewee_4	The majority of cider makers in Ireland, haven't got a clue... Nobody's got any history on the product really... Nobody's got real in-depth knowledge passed down over the years.	Producers' Lack of Knowledge. Few Specialised Craft Producers.
Interviewee_4	People, over the years, [have] gone and done Peter Mitchells course There's nothing over here where people sit down and smell something, whether it's esoteric content or something similar. There's no real level of perception at all.	Same Training. Lack of Creativity. Producers' Lack of Knowledge.

Interviewee	Quote	Initial Code
Interviewee_4	The longest that any of the cider makers in Ireland have been producing cider would be 12 years.	Producers' Lack of Knowledge.
Interviewee_4	People are only now getting to grips with how the seasons and that lack of...	Producers' Lack of Knowledge.
Interviewee_4	There's no, you know, 'we've been doing it this way for fifty years' and every one of those years, you've had an esoteric content.	Producers' Lack of Knowledge.
Interviewee_4	So that's just started - starting to get to grips with how you can influence the flavour of your production, you know, in better ways.	Changes have started.
Interviewee_4	It's very easy to say there's gooseberry if people actually know what gooseberry is like. Do people actually know what quince tastes like or smells like ? What's the difference between a mandarin and tangerine?	Difficulty Describing Taste. Challenge of Flavour Identification.
Interviewee_4	I think you need to have specifics to work to. For people to have a set of parameters to know what they're talking about.	No Agreed Standard to Analyse and Describe.
Interviewee_4	[Nez-du-Vin] a set of that would be invaluable. it might trigger a memory of some flavour that I had once a time. It mightn't come to hand quickly.	Challenge of Flavour Identification.
Interviewee_4	People need to educate themselves on flavours and aromas, before you can absolutely understand them. You need to understand each one separately before the interaction between. Yeah.	Education. Challenge of Flavour Identification. Challenge of Structural Analysis.
Interviewee_4	I still think, it is very difficult to take, personal preferences and set them to the side.	Difficulty Describing Taste. Subjectivity.
Interviewee_4	If you like something that is dry.... Unless you really trained yourself to do a structured approach, it's very hard to put put them, personal preferences, to set them to the side. But from a professional point of view, the more structured the approach, you should be able to put that into the background.	Education. Structured Approach. Personal Preference. Difficulties Describing Taste. Professionalism.
Interviewee_4	To try and put some standard stamp on all of these things, it's very important.	Importance of Standardisation.
Interviewee_4	The timing of this is probably right now 'cos there is enough expertise <u>and</u> experience to understand this further, whereas there won't necessarily have been five years ago.	Changes have started. Growing Expertise and Experience.
Interviewee_4	I think a structured approach like this is essentially the only way to go.	Importance of Standardisation.
Interviewee_4	How many people are you going to meet, who have such a natural talent, who can just taste this without going through different things like structure?	Difficulty Describing Taste. Challenge of Flavour Identification.

Interviewee	Quote	Initial Code
		Importance of Structure
Interviewee_4	If producers don't have an understanding it's... it's very difficult for them to convey that to the public.	Producers' Lack of Knowledge. Difficulty Describing Taste. Impact on Public and Sales.
Interviewee_4	This is very important because this is initially seen as quite a complex thing for the producers to understand	Importance of Standardisation. Difficulty Describing Taste. Confusion.
Interviewee_4	Trying, maybe, trying to get something [information] out of the third party [cider maker], whenever the implication of that could be phenomenal... Whether you would get absolute honesty every time from that side of things, could be a difficult thing.	Adding Ingredients to Cider. Production Practices. Lack of Transparency. Dishonesty. Difficulties.
Interviewee_4	One thing that you have to be very careful with a lot of this stuff is that we don't say that that's a bad thing everything can be there to accentuate other flavours. It could be there by a complete accident. The descriptors are there to qualify your product compared to someone else.	Adding Ingredients to Cider. Complexity of Processes. Difficulties. Compare and Assess.
Interviewee_4	Because there is a mode of thought which says 'make it very simple, make it very drinkable, make it very accessible and you'll sell loads of it'. Because there are some cider there which are just flavoured water really. Even on the craft side of things. But, there is nothing in them that offends people.	Commercial Realities. Uncomplicated Cider. Flavoured Water.
Interviewee_4	From an industry approach, the majority of the industry cider are exactly as I just mentioned previously, they're inoffensive. It's like drinking alcoholic, flavoured lemonade.	Industrial Cider. Simple Cider. Easy-to-drink Alcohol.
Interviewee_4	That's probably the biggest barrier - the bigger industry guys taking this on board.	Industrial Cider Resistance.
Interviewee_4	One of the best things for a cider-maker, for a potential cider-maker, to have in his arsenal whenever he start making, is the the equivalent of your hundred and 20 wine flavours box	Challenge of Flavour Identification. Lack of Tools.

Interviewee	Quote	Initial Code
Interviewee_4	<p>He had that he could readily identify an problem; an issue before its initiated and before it becomes a problem. You tend to correlate action and event.</p> <p>500 litres of strawberry wine going into the septic tank because it was fermented at too low a temperature, that sort of thing.</p>	<p>Challenge of Flavour Identification.</p> <p>Fault Management.</p> <p>On-the-Job Learning.</p>
Interviewee_4	<p>If you had the sensory ability to recognise, in the early stages of an industry, I think, it would make for a lot better general production.</p>	<p>Challenge of Flavour Identification.</p> <p>Lack of Tools.</p> <p>Improving Quality.</p>
Interviewee_4	<p>He was like ‘the last thing you want to do is tell the public there’s something wrong’.</p> <p>So, you might have a secondary lexicon that you have for discussing flaws, shall we say.</p>	<p>Challenge of Flavour Identification.</p> <p>Fault Management.</p> <p>Difficulty Describing Taste.</p> <p>Impact on Public and Sales.</p>
Interviewee_4	<p>Sweetness level is incredibly important.</p>	<p>Importance of Sweetness.</p>
Interviewee_4	<p>American cider styles are extreme, extremely extreme, mainstream and weird.</p> <p>Their seemingly best quality cider is so dry, so acidic, that it is very difficult, in my opinion, to get any other flavours from them</p> <p>I find them to be unbalanced, snobbish - in that we were supposed to like these things because this was a \$30 bottle of cider.</p>	<p>No Agreed Definition of Styles.</p> <p>No Guidance from America.</p> <p>Extreme American Cider.</p> <p>Unbalanced Cider.</p> <p>Snobbish Cider.</p>
Interviewee_4	<p>I don't think that the horse has bolted. It's a small proportion of the market that you're aiming for... As you get older, I'd rather have a smaller amount of something that I really like the flavour of.</p> <p>I think that's an increasing amount that the market is going down that line.</p>	<p>Opportunity.</p> <p>Small Market.</p> <p>Targeting demographics.</p> <p>Changes have started.</p>
Interviewee_4	<p>The way that a supermarket has a price profile for wine, they're not prepared to have that for beer or cider.</p> <p>They want to shoehorn all the cider into a price point and shoehorn all the beer in one price point.</p>	<p>Supermarket Shoehorning.</p> <p>Market Positioning.</p> <p>Competing with Beer.</p> <p>Price Point</p> <p>Positioning towards Wine.</p>
Interviewee_4	<p>You have to sell your flavoured cider at the same price point as your standard cider, even though the duty implication is much higher.</p> <p>That's the big problem for getting a better flavour profiles, I suppose.</p>	<p>Market Positioning.</p> <p>Price Point.</p> <p>Additional Duty on Flavoured Cider.</p> <p>Sameness of Irish Cider.</p> <p>Lack of Diversification.</p>

Interviewee	Quote	Initial Code
Interviewee_4	There's definitely a market for people that want to understand more. So therefore, the lexicon, this sort of approach, I think is worthwhile.	Opportunity. Positivity to Proposed Tool.
Interviewee_4	It can be really can be quite sophisticated, in the right way.	Cider can be Complex.
Interviewee_4	to get that idea over to industry professionals, first and foremost, because they're the ones that are going to drive whether or not your product is stocked or not and whether or not your product is more likely available to the average person.	Importance of educating the Sales Channels.
Interviewee_4	They're incredibly important, because that's your ... Everything is tiered. You've got your producer at the top, then you've got all the people who are going to sell our product.	Importance of educating the Sales Channels.
Interviewee_4	we're all trying to produce cider: a wine glass is more important than a pint glass.	Positioning Craft Cider. Cider can be Complex.
Interviewee_4	You're trying to give a perception that you can understand the product, and you're trying to get a level of sophistication to the product as well.	Positioning Craft Cider. Cider can be Complex. Education.
Interviewee_4	If you're trying to do a wine lexicon, that to me, it's just a bit more sophistication than, you know, let's just knock it back.	Cider Lexicon. Pairing with Wine. Positioning Craft Cider. Cider can be Sophisticated. Not just easy-to-drink alcohol.
Interviewee_4	For me the whole thing comes back to.... If you had a flavour box that allows you to say 'there's flavour A, there's flavour B, there's flavour C'... It would instil a memory, a reflex thought	Difficulty Describing Taste. Challenge of Flavour Identification. Lack of Tools. Education.
Interviewee_4	I do think that flavour box type thing, it is the one thing that I would have found most important...	Challenge of Flavour Identification. Lack of Tools.
Interviewee_4	I find that whole thing, quite... I think it's a pity that it's taken so long for somebody to come up with some sort of approach that brings up producers together.	No Agreed Standard to Analyse and Describe. Frustration. Lack of Guidance. Bringing Craft Producers Together.
Interviewee_4	It's unfortunate that it's happened this year with all the COVID problems 'cos this would be a fantastic thing for people [producers] to sit down and taste twenty different ciders and say this is A and this is B and whatever...	Impact of COVID. Bringing Craft Producers Together.

Interviewee	Quote	Initial Code
		Guidance and Education.
Interviewee_4	if you had been able to present this to everybody, you'd be sitting around talking about it, you'd get a lot more initial reactions off people.	Bringing Craft Producers Together. Education. Positive Producer Engagement.
Interviewee_4	I think this is very worthwhile thing for the industry. Anything that improves the overall quality will also improve perception.	Improving the Industry. Improving Quality. Positivity to Proposed Tool.
Interviewee_4	It's not about trying to saying 'my cider is better than your cider' or whatever. It's about 'what is the best way to present something that, for my point of view, maximises my sales while maintaining my production ethos or whatever'.	Assessing and Comparing. Improving the Industry. Improving through Competition. Sales.
Interviewee_4	As I say, there wasn't a pint glass to be seen, it was all wine glasses and everything that was being served with it. I think the timing is right for this sort of type of thing too - especially in Ireland.	Pairing with Wine. Cider can be Complex. Timing. Craft Cider Movement.
Interviewee_4	You might find a little bit of pushback from them because it is there to extenuate our product rather than theirs.	Industrial Cider Resistance.
Interviewee_5	very little knowledge of that.	Public's Lack of Cider Knowledge.
Interviewee_5	it's tiny the amount of people who would be aware. You know...Food writers and wine writers and foodies, people into it would be vaguely aware of them,	Experts' Lack of Knowledge.
Interviewee_5	Even some cider makers wouldn't be aware of the different styles.	Producers' Lack of Knowledge
Interviewee_5	Number one: there's no, there's no commercial cider-makers or growers in the country here, who grow native Irish apple varieties, for cider or anything else.	Few Craft Producers. Few Specialised Growers. Few Available Cider Apple Varieties. Lack of Specialised Cider.
Interviewee_5	we are quite unique in Europe in all the regions ...they all have their own native varieties that are linked to AoCs or... they have to use them for those ciders for those styles. We don't have anything like that.	Few Available Cider Apple Varieties. Unique Irish Situation.

Interviewee	Quote	Initial Code
Interviewee_5	<p>But more importantly, we don't... nobody here grows any of those apples, those native apples. The two main apples grown in the entire apple crop here in Ireland, are Dabinett and Michelin. And they are grow for the sole purpose of bulk tonnage for Bulmers.</p> <p>All of the growers who are growing them are growing them for Bulmers.</p>	<p>Lack of Specialised Apple Varieties.</p> <p>Lack of Specialised Cider.</p> <p>Bulmers Dominance.</p>
Interviewee_5	<p>Us, little craft cider makers, jump in there and grab some.</p>	<p>Few Craft Producers.</p> <p>Weakness of Craft Producers.</p>
Interviewee_5	<p>... only have the choice of those two main apples, in terms of adding body and weight. 50% of the entire crop are bramley apples. which absolutely pretty useless for cider.</p> <p>I can't over-emphasise the dominance of Bramley in Ireland.</p>	<p>Few Available Cider Apple Varieties.</p> <p>Sameness within Irish Cider.</p> <p>Single Apple Variety Dominance.</p>
Interviewee_5	<p>Where the vast majority of cider makers, they use a standard mix of 50% of Dabinett and Michelin</p>	<p>Few Available Cider Apple Varieties.</p> <p>Sameness within Irish Cider.</p>
Interviewee_5	<p>...advertising, very successful advertising - it's very seasonal, summer drink.</p> <p>It's a result of Bulmers advertising. Direct result of that.</p> <p>Bulmers have always sold it as a summer drink.</p>	<p>Power of Advertising.</p> <p>Bulmers Dominance</p> <p>Summer drink with ice.</p>
Interviewee_5	<p>because of Bulmer and their advertising campaign, it is squarely positioned beside beer. 1950s commercial methods starting been deriving...smaller bottles, force carbonated and back-sweetened and a different type of product. And then with advertising and everything now, here and in the UK, its is squarely marketed right beside beer.</p>	<p>Power of Advertising.</p> <p>Bulmers Dominance.</p> <p>Grouped with Beer.</p> <p>Diluted and sweetened.</p>
Interviewee_5	<p>I think anything that is going to help the consumer to have an understanding of the different styles or different tastes of cider, it's got to be a good thing.</p>	<p>Public's Lack of Cider Knowledge.</p> <p>Cider can be Complex.</p> <p>Positivity to Proposed Tool.</p>
Interviewee_5	<p>The problem I see is that it is going to be hard to define those styles in Ireland -</p> <p>a lot of those styles are quite similar.</p>	<p>Sameness within Irish Cider.</p> <p>Lack of Diversification.</p>

Interviewee	Quote	Initial Code
	There is not going to be a huge amount of difference between them all.	
Interviewee_5	The general consensus seems to be that it is a good thing.	Positivity to Proposed Tool.
Interviewee_5	We, the vast majority of craft cider that are sold here, are sold at medium. they're nowhere near medium in the truest European or world view of a medium cider should contain sugar-wise. Our medium ciders are full on sweet.	No agreed Cider Lexicon. No Agreed Standard to Analyse and Describe. Difficulty Describing Taste Confusion. Incorrectly Used Terms.
Interviewee_5	In terms of <u>us cider-makers</u> using it, I think, we all love something like that - that's easy and understandable. Right. So I don't see any barriers there, but it needs to be, you know, it needs to be... what's the word... useable, I suppose.	Positivity to Proposed Tool. Tool needs to be Quick and Easy.
Interviewee_5	It's more about... getting it down-pat, that understandable for everyone. And if that's a format that used throughout the industry, then, that's probably what we need to come with.	Tool needs to be Quick and Easy. Craft Industry Working Together.
Interviewee_5	But we need to be able to use it, not just for ourselves, we need to use that with our customers.	Tool needs to be Quick and Easy. Working with Public.
Interviewee_5	One of the biggest problem which I see in it, is people's understanding of the word 'dry'... Whereas, there's two types of dry: dryness from lack of sweetness and dryness from the tannins...that's a concept which is very hard to explain.	No agreed Cider Lexicon. No Agreed Standard to Analyse and Describe. Difficulty Describing Taste Confusion. Incorrectly Used Terms.
Interviewee_5	in reality, when cider makers are tasting and we're tasking amongst ourselves, we all like to know the SG and the grams per litre of acidity, and types of apples, which usually give an indication of the tannin levels.	Producers Preferring Technical Details. Producers Not Relying on Taste.
Interviewee_5	They [are] all made from the same mix of apples... There is a certain sameness there.	Few Available Cider Apple Varieties. Sameness within Irish Cider. Lack of Diversification.
Interviewee_5	I bet you, if you got all of us in here around a table together, we'd all argue profusely that all our ciders are very different.	Producers' Own Prejudices. Producing Different Styles.

Interviewee	Quote	Initial Code
Interviewee_5	I'd probably say because of what it says. Some people might think, it's somewhat derogatory [but]... It's probably fair to say that all the cider-makers think their own ciders are on their own and individual, so I wouldn't necessarily think so.	Producers' Own Prejudices. Producing Different Styles. Sameness within Irish Cider.
Interviewee_5	Differentiated by the amount that they are back-sweetened.	Sameness within Irish Cider. Diluted and sweetened.
Interviewee_5	I have time constraints. There'd be a time constraint there, in terms of people filling out forms.	Potentially using tool Need to Public to Buy. Efficient Use of Time?
Interviewee_5	I'm very much a one-man operation, farm house kind of thing, mickey-mouse operation if you like.	Weakness of Craft Producers. Small Size.
Interviewee_5	It's very... the whole problem with it - is it is so subjective. And you could do the same on the acidity in them and the tannins	No Agreed Standard to Analyse and Describe. Difficulty Describing Taste Confusion. Incorrectly Used Terms.
Interviewee_5	I wouldn't say it [American efforts] has caused a lot of confusion, but it has caused a lot of controversy. Some cider makers over there in America are saying it's rubbish, it's just not workable.	No agreed Cider Lexicon. Confusion. Incorrectly Used Terms. Unworkable. American Controversy.
Interviewee_5	And then you have, the categorisation of sweetness... but then everyone in Ireland would have to re-categorise their cider as medium and sweet, One thing is that issue of the dryness. That needs to be overcome in some way that it is understandable for everyone, in terms of sweet and in terms of tannins. That to me is the biggest barrier, or confusion area for everyone.	Importance of Sweetness. No Agreed Standard to Analyse and Describe. Difficulty Describing Taste Confusion. Incorrectly Used Terms. Barriers.
Interviewee_5	we're discussing them and, all three of us, using the word dry but we have to tempter that with a 'agh, I mean sweet or I mean tannin...'	No Agreed Standard to Analyse and Describe. Difficulty Describing Taste

Interviewee	Quote	Initial Code
		Confusion.
Interviewee_5	But, you know, we as producers are tasting all the time, I suppose we're more acutely aware. But in terms of the public which, you know, it's much more difficult to get their heads around these things.	Producer awareness. Lack of Public Awareness. Difficulty Describing Taste Confusion.
Interviewee_6	Irish people don't really have any understanding of cider.	Public's Lack of Cider Knowledge.
Interviewee_6	Cider here is, is liked, but not, not really appreciated or valued, to the same degree.	Not Valuing Cider.
Interviewee_6	singular for a sunny day type thing.	Sunny Day
Interviewee_6	I think it's... There's no real value put to it,	Not Valuing Cider.
Interviewee_6	I see very little analysis anything more sophisticated than that Richie, to tell you the truth.	Frustration. Not Valuing Cider. Need to Public to Buy. Public's Understanding.
Interviewee_6	Irish cider is probably perceived on the back of Bulmers... they would keep talking about, you know, your Irish cider - your sweet Irish cider, sweet and bubbly. Irish cider is carbonated and tends to be quite sweet.	Bulmers Dominance. Sweet Cider. Simple Cider.
Interviewee_6	I think we'd like to get away from that.	Creative Efforts.
Interviewee_6	The reality is that you sell into a market and you must give the market what they want,	Need to Public to Buy.
Interviewee_6	everybody, you know, has a different concept of sweet.	No Agreed Standard to Analyse and Describe.
Interviewee_6	The most popular ciders, the higher selling ciders, tend to be, even in craft, tend to be the sweeter, most non-challenging ciders	Need to Public to Buy. Sweet Cider. Simple Cider.
Interviewee_6	It doesn't have to be particularly challenging in terms of barrel ageing, or anything like that.	Cider can be Complex.
Interviewee_6	I don't think the public, the mass public, wants to be that educated in it... So, do they really want to know about 20 different types of cider? I'm pessimistic on that,	Frustration. Cider can be Complex. Public's Interest.

Interviewee	Quote	Initial Code
	I don't think they do. It goes back to where I see Irish people and the value they put in cider.	Not Valuing Cider.
Interviewee_6	He said, he never realised how many women drink cider. Various women say they like cider because there's not too strong. I think, a marked difference between men and women in that, and women are more likely to enjoy that, more regularly than men.	Differences between Genders. Lower alcohol.
Interviewee_6	Sunny days really do come into it... I think men mostly switch onto cider mainly because of the sun.	Sunny Day. Differences between Genders.
Interviewee_6	We've probably really missed a trick, as cider-makers, to get into that place...to get into that place, maybe shy of white wine. Given, again, the gender balance of a lot of the people who drink it.	White wine. Positioning towards Wine. Differences between Genders.
Interviewee_6	I think, they've sold snake oil with some of the pairings with food. I think, a lot of beer does not go very well with food. And I think, cider is a much better natural accompaniment to food being fruit based, and also the acidity for different fatty foods.	Competing with Beer. Distance to Food. Market Positioning. Public's Understanding.
Interviewee_6	And I think, we probably haven't as a, as an industry, found our position. Our position has always been: it's either cider or beer.	Competing with Beer. Market Positioning. Public's Understanding.
Interviewee_6	Unfortunately, for various reasons, cost of production, duty rates, all the rest of it - we can't be there, alongside beer. You know, it's just a fact of life. We can do nothing about it.	Competing with Beer. Market Positioning. Excessive Duty on Cider. Cost of Production. Beer Advantage.
Interviewee_6	The cost of production is is higher [than beer], and then, our taxation rates are higher and yet, you're insisting on devaluing.	Cost of Production. Excessive Duty on Cider. Not Valuing Cider. Beer Advantage.
Interviewee_6	You know, so, I find that quite difficult. So, back to the question: we probably haven't positioned ourselves well. We're seen as a direct alternative to beer.	Challenging. Frustration. Market Positioning. Competing with Beer.

Interviewee	Quote	Initial Code
Interviewee_6	Yeah, I think anything that makes it easier for people to evaluate, assess what they like or don't like... I see, the reluctance. In case, they get questioned... So, if there was a structured approach, I think that it allows people to have more confidence about it. To access it.	Lack of Tools. Reasonable Approach. Public's Lack of Cider Knowledge. Lack of Confidence about Complexity. Valuing Cider.
Interviewee_6	And people who are on the, you know, producers who are on the wrong side of that, it kind of still allows them to up their game and, and get to the right side of it, in terms of if it seems to be too acidic or too dry or, you know.	Improving Quality. No Agreed Standard to Analyse and Describe. Lack of Tools.
Interviewee_6	I think you'll find that there probably are as many styles of cider as there are beers. There would be a big, big range.	Breath of Styles. Challenge. Cider can be Complex.
Interviewee_6	I think you would find lots of different styles or hybrids of styles... So, it's a difficult one to get clarity on. And anything that helps clarity is going to help progress.	Breath of Styles. Challenge. Cider can be Complex.
Interviewee_6	The feedback on Katie came - that there simply wasn't enough Katie flavour and it was 100% Katie and most of the Katie ciders on the market are about 50%.	Experts' Lack of Knowledge. Challenge. Cider can be Complex.
Interviewee_6	If the consumer educates themselves and then they can look to the industry giving a fairly standardised guide. Then, if both consumer and industry are educated and singing off the same hymn sheet, then, you know, absolutely.	Public's Lack of Cider Knowledge. Education. Cider can be Complex. No Agreed Standard to Analyse and Describe. Reasonable Approach.
Interviewee_6	I see no negative energy, I see only positive.	Positivity to Proposed Tool
Interviewee_6	Yeah, because the industry is nothing unless the public buys it.	Need to Public to Buy.
Interviewee_6	I would readily admit, Richie, that my palate isn't as good as many others.	Challenge of Flavour Identification. Challenge of Structural Analysis. Differing Skill Levels.

Interviewee	Quote	Initial Code
Interviewee_6	Acidity is something that ties people up in knots. They don't know. People don't know acidity.	Education. No Agreed Standard to Analyse and Describe. Challenge of Structural Analysis.
Interviewee_6	[Length]. It has never described to me in time. ...and I've never timed them... it was never time, and you'd nearly get consensus on that.	Education. No Agreed Standard to Analyse and Describe. Challenge of Structural Analysis.
Interviewee_6	I see these things as as tending to be something to base competition on. And competition, always inspires better product... And if it gives you a template to judge or be judged... Is it a recurrent positive theme or a negative theme? What do you do about it? So I'm all for it.	Positivity to Proposed Tool. Improving Quality. Assessing and Comparing. Improving the Industry. Improving through Competition.
Interviewee_6	It can't bring negatives, it can only bring positives to the sector in general.	Positivity to Proposed Tool. Improving Craft Sector.
Interviewee_6	it improves the quality of everybody's product because it's easier to analyse everybody's, you know, even within the industry.	Positivity to Proposed Tool. Improving Quality. Assessing and Comparing. Improving the Industry.
Interviewee_6	it improves the quality of our products and on the other hand, it improves the accessibility for purchasers.	Positivity to Proposed Tool. Improving Quality. Improving the Industry.
Interviewee_6	to take out the negative parts and Irish cider as an example, starts to become seen as, you know, Irish craft cider has really upped its quality levels. Well so - happy days. You know, then everybody goes forward. So I.... there's no negatives to it, Richie, as far as I see.	Positivity to Proposed Tool. Improving Quality. Improving the Industry.
Interviewee_6	once you put that forward to people, just like wine, that it is possible to taste those flavours or or isolate those flavours within the palate. That it's not some, you know, excuse the expression 'wine [expletive expletive].	Cider can be Complex. Positioning towards Wine. Avoiding Wine Snobbery. Positivity to Proposed Tool. Challenge of Flavour Identification.
Interviewee_6	And even within that, I can tell you that there wasn't enough of a lexicon to describe one of the ciders I made!	Difficulty Describing Taste.

Interviewee	Quote	Initial Code
		No agreed Cider Lexicon. Cider Faults.
Interviewee_6	First wine tasting... Their eyes opening in wonder that they now were explained what they were, what they were tasting.... and took the time to analyse it.	Difficulty Describing Taste. Challenge of Flavour Identification. Challenge of Structural Analysis.
Interviewee_6	Of course, the elephant in the room for a lot of these things, is how do they get there? Do you know? How did those flavours get that, or how did, sometimes colours... colours get there, you know?	Industrial Cider. Adding Ingredients to Cider.
Interviewee_6	... stop this muck from not coming in, and not paying enough tax! A craft cider maker, making a mixed fruit cider is not at the level of alcohols. It should be allowed to get to a place in the market without excessive duty.	Industrial Cider. Excessive Duty on Cider.
Interviewee_6	He said 'we get a load of water, a load of sugar, and we will ferment the hell out of it. And then we'll add some apple essence'. And I said 'yeah'. But he said, 'cheap as chips - 20,000 litres delivered to you'...dirty Industry.	Industrial Cider. Cheap. Production Practices. Dishonesty. Dirty Industry.
Interviewee_6	Some people might be afraid [that] they're found out as being exactly the same as the guy next door... Some people can be afraid that in educating the customer, you're, maybe, showing them the faults in your own cider. The barrier? The barrier is fear.	Craft Producer Fear. Fears of Being Found Out. Fear of Public Knowledge. Commercial Realities.
Interviewee_6	Barrier is fear. I think that, that all of a sudden you're not special. there may not be brand loyalty anymore... I'm not afraid of it for all my faults and for all my ciders faults, I'm not afraid of it. I think it'll actually improve what I do and what the industry does. Maybe fear that somebody might, instead of just necking a bottle of cider, might actually analyse it and decide they like something else.	Craft Producer Fear. Fears of Being Found Out. Fear of Losing Brand Loyalty. Fear of Losing Cider Drinkers. Improving Quality.
Interviewee_6	Again I go back to the upside, is a better educated consumer and better educated industry.	Improving the Industry. Improving Public's Knowledge. Education. Improving Quality.

Interviewee	Quote	Initial Code
Interviewee_6	Information tends to make a better product that lifts an industry. In this regard, this kind of competition, and therefore information-return will make everybody's experience better, I think, in the, in the long term.	Positivity to Proposed Tool. Improving Quality. Information. Improving the Industry. Improving through Competition.
Interviewee_6	Whereas most European makers tend to appreciate an aged cider. I think there's probably an 'us and them', a transatlantic [thing].	Lack of Agreement. Differing Industry Perspectives. Confusion.
Interviewee_6	Somebody that can command their respect as well, and after being educated, with no dog in the fight, with no agenda, with the information and then prescribe, and say 'look this is it'.	Education. Impartiality. No agreed Cider Lexicon. Difficulty Describing Taste. Challenge of Flavour Identification. Challenge of Structural Analysis.
Interviewee_6	Some of them are commercially much more successful than me,I'm more successful than some of the other ones commercially. Is that a good thing or a bad thing? But it's all part of the equation as to what the industry is and what people generally, I suppose.	Need to Public to Buy. Differences in commercial success.
Interviewee_6	I don't think anybody in this type of instance will be behind the door or recalcitrant. I just think it's, it's for the benefit of the industry. And I think what you're doing can only bring positives.	Positivity to Proposed Tool. Improving Quality. Making the Craft Market Better.
Interviewee_7	the awareness, in that case, would be limited to non-existence.	Public's Lack of Cider Knowledge.
Interviewee_7	overall style of cider which is called Bulmers, which is permeated the consciousness of what cider is and it's universal in that sense,	Bulmers Dominance.
Interviewee_7	alternative ciders would be seen as cheaper ciders	Cheap.
Interviewee_7	other industrial ciders such as Orchard Thieves	Industrial Cider.
Interviewee_7	craft cider, which is a very small portion of the market, I would say there are very limited numbers of actual, craft producers	Few Craft Producers. Small Market. Few Specialised Craft Producers.
Interviewee_7	a lot of it have derived from apple growing backgrounds so they're growing of apples has led to the production of cider from those apples, which is a second, not secondary... but it's that the cider production has evolved from a primary focus, which is the growing of fruit.	Secondary Activity.

Interviewee	Quote	Initial Code
Interviewee_7	In terms, then, of the even smaller sub-category of people who've got into the production of cider, in order to produce cider of a higher quality or of a uniquely Irish focus, it's a very, very, small number of producers...	Few Craft Producers. Small Market. Differing Skills Levels. Little focus on higher quality. Little focus on Irish uniqueness.
Interviewee_7	... developing an Irish style. Its revolving, unfortunately, around the idea of cider with ice. And, you know, the bulk of the producers are in that.	Irish Style with Ice. Need to Public to Buy.
Interviewee_7	Some try make a unique style, to do more creative things with cider.	Creative Efforts. Unique Style. Craft Cider Movement.
Interviewee_7	So, it's in the evolution of some of the stuff we're putting out, I'm getting more inbound interest from people interested in learning about cider - there is the start, probably, of a craft cider movement	Changes have started. Timing. Craft Cider Movement.
Interviewee_7	as a means to generate income, in its current incarnation, it's not necessarily the most opportunistic business move.	Need to Public to Buy. Difficulty.
Interviewee_7	the public's perception - of what craft cider is... is 500 mil, fizzy bottles, just like beer, you put ice in it.	Public's Perception. Irish Style §. Grouped with Beer.
Interviewee_7	conscious effort to ...distance ourselves from the perception of cider. Trying to break the glass ceiling of what people feel things are.	Creative Efforts. Public's Perception of Cider. Timing. Restricted Knowledge.
Interviewee_7	And the apples that have been planted, for the most part, are limited in what was contractually of interest to Bulmers.	Bulmers Dominance.
Interviewee_7	Dabinetts and Michelins... the workhorses of both the English and the Irish industry... that's what's frustrating their cider making. And people are trying to make it in slightly different styles.	Few Available Cider Apple Varieties. Restricted Creativity. Frustration.
Interviewee_7	1000 year history of making cider	Lost History.
Interviewee_7	Apples haven't been treated with respect	Production Methods. Producers' Lack of Knowledge.

Interviewee	Quote	Initial Code
Interviewee_7	They're using concentrate to fulfil their 35%, and that 35% is fulfilled by a smaller amount of concentrates. So, they might be getting 50% concentrates are effective actually juice content is only 17%	Industrial Cider.
Interviewee_7	We're making a different product for a different market. It doesn't necessarily appeal to everyone in terms of the price point.	Creative Efforts. Need to Public to Buy. Price Points.
Interviewee_7	It doesn't necessarily appeal to everyone in terms of the price point.	Creative Efforts. Need to Public to Buy. Price Points.
Interviewee_7	But, what we hear most often is 'I don't like cider but I like this' or in terms of the ice wine or the pommeau Ice wine or the pommeau - 'Oh my god, what is that? I've never tasted something that could before!'	Potential of Complexity. Cider can be Complex. Creative Efforts.
Interviewee_7	I think that with some of the people who are involved in cider production now, are creating this proto-template of a range of things that could... the directions it could go!	Potential of Complexity. Creative Efforts. Changes have started.
Interviewee_7	And craft beer has taken hold slightly later in Ireland than a lot of countries and five years ago a friend of mine has a Twitter handle 'a 100 Irish beers' - thinking it would never get to 100. He gave up after 300... cider [in Ireland] hasn't gotten to that stage yet, but it's already happening in England.	Change have started. Creative Efforts.
Interviewee_7	It's a summer drink that you put ice in. In the beer category for people who don't like beer, or in the teen category for people who don't like alcohol and want to get drunk.	Summer drink with Ice. Grouped with Beer. Easy-to-drink Alcohol. Teenagers getting Drunk. Need to Public to Buy.
Interviewee_7	For people who like white wine and want to be less drunk, possibly. Or want to have a lighter drink. The people who enjoy cider will enjoy cider in a slightly different way, probably treating as a little bit more like a wine with dinner. That's, maybe, aspirational for us as cider makers to try and get people to look at it like that	Positioning towards Wine. Distance to Food. Need to Public to Buy. Breath of Styles. Public Expectations. Aspirations.
Interviewee_7	It makes sense. The language isn't necessarily there yet. I guess a lot of wine drinkers are themselves not familiar with the language of wine.	No agreed Cider Lexicon. Positioning towards Wine.

Interviewee	Quote	Initial Code
	<p>So the establishment of a language does not, is not, the same as ensuring everyone is educated or appreciates what that language means.</p> <p>But not even having a language is, is, is even more challenging!</p>	<p>Challenging.</p> <p>Reasonable Approach.</p>
Interviewee_7	<p>I find that the restrictions, not in a bad way, but the self imposed restrictions associated with GIs and AoCs and labelling, create, itself, a limit.</p> <p>So for us to say 'this is the language you must use': the next generation of cider-makers, then, become limited by that language that we, in our own overlook, has imposed upon them.</p>	<p>Difficulty of Agreeing Standards.</p> <p>Creating limitations.</p>
Interviewee_7	<p>Yeah. I mean, that's makes sense. In that, an understanding of how to proceed, what you're drinking, makes sense and, I mean, the language to describe it in. I think it's good.</p>	<p>No agreed Cider Lexicon.</p> <p>Lack of Agreement.</p> <p>Difficulty Describing Taste.</p> <p>Reasonable Approach.</p>
Interviewee_7	<p>that's why at the start, we kept away from using the words 'medium dry sweet' on the bottom because it doesn't make any sense.</p>	<p>No agreed Cider Lexicon.</p> <p>No Agreed Standard to Analyse and Describe.</p> <p>Difficulty Describing Taste</p> <p>Confusion.</p>
Interviewee_7	<p>Irish ciders, some large ones specifically, is acetic. Acetic notes in light ciders and it's unfortunate... Line-cleaner chemical nature that comes through large production of some craft ciders... an overuse of sulphites that is noticeable to the taste... sulphites as a cure-all.</p>	<p>Industrial Cider.</p>
Interviewee_7	<p>...difficulty and this is why you're probably having the question as to what is people's perception of that word [sourness]. Crisp, fresh, Bright. Racing. I'm not sure how I would understand that myself.</p>	<p>No agreed Cider Lexicon.</p> <p>Lack of Agreement.</p> <p>Confusion.</p> <p>Difficulty Describing Taste</p>
Interviewee_7	<p>There's an evolution in tasting...stuff starts to leap out... You're practicing something and then your brain kind of chucks out 'oh, this is like that'...</p> <p>But, I wouldn't necessarily have had the language to describe it.</p>	<p>Changes have started.</p> <p>Effort Required.</p> <p>No agreed Cider Lexicon.</p> <p>No Agreed Standard to Analyse and Describe.</p> <p>Challenge of Flavour Identification.</p> <p>Difficulty Describing Taste</p>
Interviewee_7	<p>no one wants strawberry-flavoured chocolate or chocolate-flavoured strawberries. But those notes are there, but they're in kind of harmony when you taste it rather than on the page as you're reading it.</p>	<p>Difficulty Describing Taste.</p> <p>Need to Public to Buy.</p>

Interviewee	Quote	Initial Code
Interviewee_7	I wouldn't have any particular reason to not adopt something if people are reasonably standard on it. There is the subjective nature of people's perception ... while standardisation could be, you know, chosen...	No Agreed Standard to Analyse and Describe. Subjectivity. Reasonable Approach.
Interviewee_7	What I see is brown sugar and what someone else sees is caramel, maybe two different things but the adoption of a systematic or structured approach like this, makes abundance sense.	Difficulty Describing Taste. No Agreed Standard to Analyse and Describe. No agreed Cider Lexicon. Subjectivity. Reasonable Approach.
Interviewee_7	Because the drink that has been produced doesn't have any of these notes in it. You know. I mean, there's no finish to Orchard Thieves.	Sameness within Irish Cider. Industrial Cider.
Interviewee_7	So, the products that are coming out or that have been coming over the last whatever three years to five years, do have these nuances.	Changes have started. Efforts to Broaden Range of Styles. Creative Efforts.
Interviewee_7	But this is the battle that cider has - to value itself before people, everyone else, values it.	Challenge. Cider can be Complex. Not Valuing Cider. Need to Public to Buy. Public's Lack of Cider Knowledge. Producers' Lack of Knowledge.
Interviewee_7	Now, there's an interest in us actually getting us to describe these products well and as cider-makers, myself included, we're learning as we're going along. So, we're learning by the production of these higher quality products, plus how to make the products better... because we've learned. Better blending techniques and timing techniques and that type of stuff.	Changes have started. Timing. Difficulty Describing Taste. On-the-Job Learning. Creative Efforts. Improving Quality.

Interviewee	Quote	Initial Code
Interviewee_7	I think this is something that is helpful, but it isn't that people have actively thought to not [<i>emphasis</i>] have this type of thing. It's just that no one has done it for some ... for one reason and people are kind of winging it and don't necessarily have the time or the commercial motivation because most people, you know, aren't putting out products that are selling enough that someone has going back and going 'you know, we saw loads of this and it's not described well' or they're not getting necessarily customer feedback on that it should be described in such a way.	Lack of Tools. Lack of Agreement. Reasonable Approach. Challenging. Need to Public to Buy. Sameness within Irish Cider. On-the-Job Learning. Public's Lack of Interest.
Interviewee_7	There's not that rigour or standardisation and that most people are winging it.	Lack of Standardisation. Lack of Rigour. Need to Public to Buy. On-the-Job Learning.
Interviewee_7	But you're starting to see in the UK and like even, you know, amateur reviewers, But their descriptors are using this type of a framework and becoming more subtle and more accurate. So this interaction is bringing it up. So I think it's a case of 'it's now is a good time for it to happen'. Yeah. I couldn't see people having an issue with it now.	Changes have started. Timing. Lack of Tools. Lack of Agreement.
Interviewee_7	Maybe having this tool, as part of it, I think would be something that I could do and would do. In some cases, mightn't have the time to necessarily kind of go 'right, I'm going to go through this systematically'. But like anything, once you do it a few times, you're gonna get quicker and so I think it's probably a case of doing it.	Potentially using tool Need to Public to Buy. Efficient Use of Time?
Interviewee_7	And effectively, is it an effective use of someone's time or half an hour of their time? It should be because, I know, when I get into the label stage, I have to sit down and do it 'cos I want those three or four words, peeled off the back of the page. So...	Efficient Use of Time? Need to Public to Buy. Difficulty Describing Taste. Reasonable Approach.
Interviewee_7	It's good to see that this could be something that we could be used. You know, it does seem to be refined towards cider, in a good way.	Reasonable Approach. No agreed Cider Lexicon.

Appendix E: Listing of the Codes which were Initially Identified

Initial Codes					
Ability to Describe Taste.	Cost of Production.	Few Craft Producers.	Lack of Specialized Cider.	Produced like Beer.	Weakness of Craft Producers.
Adding Ingredients to Cider.	Covid.	Few Specialized Craft Producers.	Lack of Standardization.	Producer awareness.	White wine.
Additional Duty on Flavoured Cider.	Craft Cider Movement.	Few Specialized Growers.	Lack of Structured Approach to Tasting.	Producers Not Relying on Taste.	Working with Public.
Advantages of Beer.	Craft Industry Working Together.	Flavoured Water.	Lack of Tools.	Producers Preferring Technical Details.	
Agreeing Lexicon.	Craft Producer Fear.	Frustration.	Lack of Transparency.	Producers' Lack of Expertise.	
American Controversy.	Creating an Irish Style.	Giving Confidence.	Lack of Understanding.	Producing Different Styles.	
Aspirations.	Creating limitations.	Grouped with Beer.	Larger Market.	Production Methods.	
Assessing and Comparing.	Creating Universal Terms.	Growing Expertise and Experience.	Legitimizing Craft Cider.	Production Practices.	
Avoiding coupling to apple varieties or style.	Creative Efforts.	Guidance and Education.	Lexicon defining Irish Style (assumed).	Professionalism.	
Avoiding Political Conflicts.	Creative Thinking.	High Quality Cider.	Little focus on higher quality.	Public Expectations.	
Avoiding Wine Snobbery.	Critical Need.	High Value Product.	Little focus on Irish uniqueness.	Public Perception.	
Barriers.	Cultural Misunderstanding.	Immaturity of Irish Craft Industry.	Lobby Power.	Public's Lack of Cider Knowledge.	
Beer Advantage.	Damaging the Craft Market.	Immaturity of Irish Craft Market.	Lost Cider Knowledge.	Public's Lack of Interest.	
Beer Companies in Cider.	Describing Taste.	Impact on Public and Sales.	Lost History.	Public's Perception.	
Big Brewers.	Differences between Genders.	Impartiality.	Lower alcohol.	Public's Understanding.	
Big Cider Fear.	Differences in commercial success.	Importance of educating the Sales Channels.	Lowest Common Denominator.	Quality Cider.	

Initial Codes					
Big Cider.	Differing Industry Perspectives.	Importance of Standardization.	Making the Craft Market Better.	Reasonable Approach.	
Big Co-operatives.	Differing Skills Levels.	Importance of Structure.	Market Positioning.	Resistance from Big Beer.	
Big Corporate Lack of Understanding.	Difficulties Describing Taste.	Importance of Sweetness.	Misplaced Cider.	Restricted Creativity.	
Big Corporates Fear.	Difficulty of Agreeing Standards.	Improving Craft Sector.	Misunderstanding Cider.	Restricted Knowledge.	
Big Corporates.	Diluted and sweetened.	Improving Public's Knowledge.	Money.	Sales Description Tactics.	
Breath of Styles.	Dirty Industry.	Improving Quality.	Need for Standards.	Sales.	
Bringing Craft Producers Together.	Dis-interest of Large Corporates.	Improving the Industry.	Need to Public to Buy.	Same Training.	
Broadening the Cider Market.	Dishonesty.	Improving the Market.	No agreed Cider Lexicon.	Sameness of Irish Cider.	
Bulmers Dominance	Distance to Food.	Improving through Competition.	No Agreed Definition of Styles.	Secondary Activity.	
Challenge of Flavour Identification.	Drinking without thinking.	Inappropriate Praise of Own Cider.	No Agreed Standard to Analyze and Describe.	Simple Cider.	
Challenge of Structural Analysis.	Easy-to-drink Alcohol.	Incorrectly Placed.	No Guidance from America.	Single Apple Variety Dominance.	
Challenging.	Educating the Consumer.	Incorrectly Used Terms.	Not Acceptable.	Small Market.	
Changes have started.	Educating the Public.	Increasing Cider Knowledge.	Not just easy-to-drink alcohol.	Snobbish Cider.	
Changes within Industry.	Education.	Individual Producer's Style and Ethos	Not Respected.	Structured Approach to Tasting.	
Changing the Market Perception.	Efficient Use of Time?	Industrial Cider Resistance.	Not Taken Seriously.	Struggle.	
Cheap.	Effort from Craft Cider.	Industrial Cider.	Not Valuing Cider.	Subjectivity.	

Initial Codes					
Cider can be Complex	Effort Required.	Institutional Conflicts.	On-the-Job Learning.	Summer drink with ice.	
Cider can be Sophisticated.	Efforts to Broaden Range of Styles.	Irish Style	Opportunity.	Summer Drink.	
Cider Faults.	Enlightening the Public.	Irish Style with Ice.	Pairing with Food.	Sunny Day.	
Cider Lexicon.	Essential Tools.	Lack of Agreement.	Pairing with Wine.	Supermarket Shoehorning.	
Coherent and Logical Standards.	Excessive Duty on Cider.	Lack of Confidence about Complexity.	Personal Preference.	Sweet Cider.	
Collaboration.	Experts' Lack of Knowledge.	Lack of Creativity.	Population.	Targeting demographics.	
Commercial Realities.	Extreme American Cider.	Lack of Diversification.	Positioning Craft Cider.	Teenagers getting Drunk.	
Competing with Beer.	Failure.	Lack of Genuine Support.	Positioning towards Wine.	Timing.	
Competing with Wine.	Fault Management.	Lack of Guidance.	Positive Producer Engagement.	Tool needs to be Quick and Easy.	
Competition.	Faults.	Lack of High Quality Cider.	Positivity to Proposed Tool.	Unbalanced Cider.	
Completing Beer's Product Line.	Fear of Labelling.	Lack of Initiative.	Potential of Complexity.	Uncomplicated Cider.	
Complexity of Processes.	Fear of Losing Brand Loyalty.	Lack of Interest.	Power of Advertising.	Unique Irish Situation.	
Conflicts of Interests.	Fear of Losing Cider Drinkers.	Lack of Proactivity.	Power of Market Majority	Unique Style.	
Confusion.	Fear of Public Knowledge.	Lack of Public Awareness.	Power of Universal Terminology.	Unworkable.	
Consistency.	Fear of Public Reaction.	Lack of Rigour.	Power.	Used as Window Dressing.	
Control.	Fears of Being Found Out.	Lack of sophistication.	Powerlessness of Small Producers.	Value for Money.	
Corporate Mentality.	Few Available Cider Apple Varieties.	Lack of Specialized Apple Varieties.	Price Point.	Valuing Cider.	

Appendix F: Colour Highlighting Related Groups of Codes Across Interviews

Interviewee_1	Interviewee_2	Interviewee_3	Interviewee_4	Interviewee_5	Interviewee_6	Interviewee_7
Difficulty describing Taste	No agreed way to taste, analyse and describe	Industrial Cider	Industrial Cider	No agreed way to taste, analyse and describe	Want to Improve Market for Craft	No agreed way to taste, analyse and describe
Need Education	Public's Understanding of Cider	Power	Needing public to buy	Sameness of Irish Cider	Welcome Assistive Tools	Difficulty describing Taste
Size of the Market for Craft	Frustrating and Challenging	Sameness of Irish Cider	Cider: can be Complex and High Quality	Difficulty describing Taste	Difficulty describing Taste	Needing public to buy
No agreed way to taste, analyse and describe	Want to Improve Market for Craft	Needing public to buy	Need Education	Need Education	Industrial Cider	Lack of Creativity
Public's Understanding of Cider	Need Education	Public's Understanding of Cider	Producers: Lack of Expertise	Limited: Few Available Cider Apple Varieties	Want to Improve Cider	Welcome Assistive Tools
Producers: Lack of Expertise	Producers: Some Producing Different Styles..	Difficulty describing Taste	Need Guidance	Welcome Assistive Tools	No agreed way to taste, analyse and describe	Industrial Cider
Want to Improve Market for Craft	Sameness of Irish Cider	Fear	Craft Cider Movement	Bulmers	Cider: can be Complex and High Quality	Want to Improve Market for Craft
Cider: can be Complex and High Quality	Size of the Market for Craft	Lack of Creativity	Faults	Producers: Lack of Expertise	Fear	Public's Understanding of Cider
Cider: Sunny Day with Ice	Want to Improve Cider	Want to Improve Market for Craft	Cider as simple, sweet alcohol	Public's Understanding of Cider	Lack of Interest	Want to sell different Styles
Distance to Wine or Food	Cider as simple, sweet alcohol	Cider: Breath of Styles	Distance to Wine or Food	Limited: Few Craft Producers.	Need Education	Cider: can be Complex and High Quality
Sameness of Irish Cider	Difficulty describing Taste	Cider: can be Complex and High Quality	Lack of Interest	Producers: Some Producing Different Styles..	Needing public to buy	Producers: Different Skill Levels
Want to sell different Styles	Lack of Creativity	No agreed way to taste, analyse and describe	No agreed way to taste, analyse and describe	Cider: can be Complex and High Quality	Public's Understanding of Cider	Cider as simple, sweet alcohol

Interviewee_1	Interviewee_2	Interviewee_3	Interviewee_4	Interviewee_5	Interviewee_6	Interviewee_7
Frustrating and Challenging	Needing public to buy	Big Brewers	Comparing and Assessing Ciders	Cider: Sunny Day with Ice	Market Positioning.	Cider: Sunny Day with Ice
Industrial Cider	Beer Advantages	Frustrating and Challenging	Lack of Creativity	Craft Cider Movement	Beside Beer	Distance to Wine or Food
Beer Advantages	Cider: Sunny Day with Ice	Need Guidance	Market Positioning.	Disagreement in America	Cider as simple, sweet alcohol	Need Education
Bulmers	Comparing and Assessing Ciders	Distance to Wine or Food	Difficulty describing Taste	Needing public to buy	Distance to Wine or Food	Sameness of Irish Cider
Cost of Production.	Craft Cider Movement	Beside Beer	Price Point	Beside Beer	Frustrating and Challenging	Bulmers
Duty on Cider	Distance to Wine or Food	Lack of Interest	Producers: Different Skill Levels	Size of the Market for Craft	Beer Advantages	Craft Cider Movement
Faults	Lack of Interest	Need Education	Want to Improve Market for Craft	Tool: Efficient Use of Time?	Cider: Breath of Styles	Frustrating and Challenging
Lack of Creativity	Limited: Few Available Cider Apple Varieties	Want to sell different Styles	Duty on Cider		Cider: Sunny Day with Ice	Lack of Interest
Limited: Few Available Cider Apple Varieties	Limited: Few Craft Producers.	Cider: Sunny Day with Ice	Frustrating and Challenging		Comparing and Assessing Ciders	Limited: Few Craft Producers.
Market Positioning.	Need Guidance	Craft Cider Movement	Beside Beer		Cost of Production.	Need Guidance
Need Guidance	Beside Beer	Producers: Lack of Expertise			Faults	Beside Beer
Needing public to buy	Producers: Lack of Expertise	Producers: Secondary Activity.			Need Guidance	Price Point
Beside Beer	Want to sell different Styles	Beer Advantages			Producers: Lack of Expertise	Producers: Lack of Expertise
Want to Improve Cider		Bulmers			Bulmers	Size of the Market for Craft
		Cider as simple, sweet alcohol			Duty on Cider	Tool: Efficient Use of Time?

Interviewee_1	Interviewee_2	Interviewee_3	Interviewee_4	Interviewee_5	Interviewee_6	Interviewee_7
		Disagreement in America			Lack of Creativity	Cider: Breath of Styles
		Lost History			Producers: Different Skill Levels	Limited: Few Available Cider Apple Varieties
		Producers: Different Skill Levels				Lost History
		Size of the Market for Craft				Producers: Secondary Activity.
		Welcome Assistive Tools				

Appendix G: Counting and Sorting Groups of Codes Across and Within Interviews

Code Group	Number of interviews code group arose	Mentions by Interviewee_1	Mentions by Interviewee_2	Mentions by Interviewee_3	Mentions by Interviewee_4	Mentions by Interviewee_5	Mentions by Interviewee_6	Mentions by Interviewee_7	Total across all interviews
Difficulty describing Taste	7	21	2	7	3	10	10	12	65
Need Education	7	16	3	3	8	8	6	3	47
Needing public to buy	7	1	2	10	9	1	6	12	41
No agreed way to taste, analyse and describe	7	8	9	6	3	15	8	16	65
Beside Beer	7	1	1	4	1	1	4	2	14
Producers: Lack of Expertise	7	6	1	2	6	4	2	2	23
Cider: can be Complex and High Quality	6	4	0	6	8	1	7	5	31
Lack of Creativity	6	1	2	7	2	0	1	10	23
Public's Understanding of Cider	6	8	7	9	0	3	6	6	39
Distance to Wine or Food	6	5	1	5	4	0	4	3	22
Want to Improve Market for Craft	6	4	4	7	2	0	13	7	37
Cider: Sunny Day with Ice	6	3	1	2	0	1	2	3	12

Code Group	Number of interviews code group arose	Mentions by Interviewee_1	Mentions by Interviewee_2	Mentions by Interviewee_3	Mentions by Interviewee_4	Mentions by Interviewee_5	Mentions by Interviewee_6	Mentions by Interviewee_7	Total across all interviews
Frustrating and Challenging	6	2	5	5	1	0	3	2	18
Need Guidance	6	1	1	5	6	0	2	2	17
Cider as simple, sweet alcohol	5	0	2	1	5	0	5	3	16
Industrial Cider	5	2	0	19	11	0	10	7	49
Lack of Interest	5	0	1	3	3	0	6	2	15
Bulmers	5	1	0	1	0	5	1	2	10
Sameness of Irish Cider	5	3	3	11	0	13	0	3	33
Size of the Market for Craft	5	9	3	1	0	1	0	2	16
Craft Cider Movement	5	0	1	2	4	1	0	2	10
Beer Advantages	4	1	1	1	0	0	2	0	5
Limited: Few Available Cider Apple Varieties	4	1	1	0	0	7	0	1	10
Welcome Assistive Tools	4	0	0	1	0	7	11	8	27
Want to sell different Styles	4	3	1	3	0	0	0	6	13
Producers: Different Skill Levels	4	0	0	1	2	0	1	5	9
Cider: Breath of Styles	3	0	0	6	0	0	2	1	9

Code Group	Number of interviews code group arose	Mentions by Interviewee_1	Mentions by Interviewee_2	Mentions by Interviewee_3	Mentions by Interviewee_4	Mentions by Interviewee_5	Mentions by Interviewee_6	Mentions by Interviewee_7	Total across all interviews
Comparing and Assessing Ciders	3	0	1	0	2	0	2	0	5
Duty on Cider	3	1	0	0	1	0	1	0	3
Faults	3	1	0	0	4	0	2	0	7
Limited: Few Craft Producers.	3	0	1	0	0	2	0	2	5
Market Positioning.	3	1	0	0	2	0	4	0	7
Want to Improve Cider	3	1	3	0	0	0	9	0	13
Fear	2	0	0	7	0	0	7	0	14
Cost of Production.	2	1	0	0	0	0	2	0	3
Disagreement in America	2	0	0	1	0	1	0	0	2
Lost History	2	0	0	1	0	0	0	1	2
Price Point	2	0	0	0	2	0	0	2	4
Producers: Secondary Activity.	2	0	0	2	0	0	0	1	3
Producers: Some Producing Different Styles..	2	0	3	0	0	2	0	0	5
Tool: Efficient Use of Time?	2	0	0	0	0	1	0	2	3
Big Brewers	1	0	0	5	0	0	0	0	5

Code Group	Number of interviews code group arose	Mentions by Interviewee_1	Mentions by Interviewee_2	Mentions by Interviewee_3	Mentions by Interviewee_4	Mentions by Interviewee_5	Mentions by Interviewee_6	Mentions by Interviewee_7	Total across all interviews
Power	1	0	0	12	0	0	0	0	12

Interview One

Date: Friday 11th September 2020, 12:30 pm

RB: OK. What I might do, if it is ok with yourself, is run through some of the questions, and as you can see - halfway down we'll open it up then to talk about template.

Interviewee_1: yeah, no bother.

RB: And the first question is really jumping towards style. What is your understanding of the public's knowledge of the different styles of cider, such as Spanish, French, West Country English?

Interviewee_1: Now when you're about... You're talking from an Irish perspective; the context: is it an Irish context?

RB: Yeah. It's the Irish public.

Interviewee_1: Yeah. I just want to define where the context is - it's Ireland you're referring to now. Yeah, yeah.

Well, I think the public's perception of style of cider in Ireland is very poor to start out with. They don't understand cider as a unique product of its own and I think suffer from what I call the Bulmers' effect. Like, everyone that has drunk cider in Ireland, more or less started off with Bulmers and they equate style of cider to a sweet type of manufactured cider and if you look at the rest of them that are coming on the market, Orchard Thieves the em, ...what's that Rockshore, that a good cider....Stella Artois... They're all in that same frame of ciders. Now, the variation of style in the public perception is fruit ciders which is a style. Like, you know what i mean? But, if you look at traditional style of ciders, say, that have a high fruit content of different type of apples - the recognition of a style is not understood like you know what I mean. I don't think the public in

Ireland and, the Irish public, appreciate the same value as [other beverages]. They'd appreciate different styles in different types of wines. The level of knowledge doesn't exist.

RB: Is there an Irish style or is that Bulmers style, is that the Irish style?

Interviewee_1: Yeah. The Irish style as I refer to, it is not a style. I'd say, it is the Bulmers effect of [emphasis] style. You know what I mean? It's the perception that, you know, we're used to and this is style of cider. Is there an Irish style of cider? No, there is not an Irish style of cider. If I ignore Bulmers for a minute and that style of cider and answer the question. No, there is not an Irish style of cider and it is one thing that I, I've been looking at trying to develop is how do we define an Irish style of cider? Even if we look, we say, there was a few competitions ran in Ireland about, cider competitions, and they were so badly prepared and run that they couldn't develop proper cider and even Blas Na h'Eireann had, in fairness, and Blas Na h'Eireann are very, very good, right, and they will listen to us if we put a good proposal to them, and they have two or three styles in their categories, you know, dry and sweet and speciality. You know what I mean? Now they're somewhere trying to get a handle on it. But is there a defined style of Irish cider? No. No.

RB: Unfortunately, not. The next question, and again it's a public perception question, is what is the public's perception of when to enjoy cider?

Interviewee_1: Well - that's an interesting question. Again, we're coming back to... Tradition states that you crush your apples in the Autumn, you mature in Winter, you bottle in Spring and you drink in Summer and that perception of cider still remains today. Nearly more so in the craft cider area than in the manufactured cider. The manufactured [cider industry] are now starting to get over the summer-only effect. But I think that craft cider still have that problem that ciders is only to be enjoyed on hot summer days

RB: And are we targeting an aperitif? Something dry before dinner or is it sweet, is it something for the pub, is it ...

Interviewee_1: Yeah, that comes down to the point of educating the consumer. It's one of the things that we'll be looking at going forward. It's trying to educate the consumer to marry styles

or ciders of different styles with food. Now if you take, if you don't mind referring to my own style of cider. Yeah, if you take my [] Medium-Dry, which has been referred to as, very much a Normandy type cider, you know? It has got a lot of tannin, nice bit of astringency and it's almost dry but not quite. Right? Now that marries very well with cheeses and it marries well with, you know, some very strongly flavoured. It goes fantastically with strong curries. Then you got other more... Cider that are made from more desert type apples. You know what I mean? Which are mellower in the taste profile and they'll go with other softer types cheeses and foods and then of course, you've got some of the flavoured type ciders. I'm talking like about, and again I'll refer to my own, our Elderflower Cider one - absolutely tremendous with pavlova, with a cheese cake or a summer salad but the point being that it is not my cider that matters - it's about educating the consumer to marry the style of cider with the food.

But it is also about the cider maker in Ireland. I firmly believe that our cider making knowledge is very poor and that our development inYou should talk to [another craft producer]... is a very, he's a good guy and he's developing a nice range of ciders.

RB: He's a perry as well.

Interviewee_1: That's exactly where I was coming to. The point I was going to make. So, we haven't been proactive enough in developing a wide enough range for the consumer to try out but married to that is the educational side. So, [other craft producer] has been great in developing ciders, aperitifs and such. He's broadening the range and giving the consumer choice. But then, the consumer doesn't know what to do with it, once they get it. Again, with [another craft producer]... he is way out there. He's developing lovely ciders as well. He has a nice cider too and, you know, so those guys are starting to lead the way. Mark. If he had the money, he'd be developing all those ciders as well as [another craft producer]. I have got his telephone number here. [Details provided]. So yeah, I think the question was the public's perception? There isn't. The public's perception is summer day with your bbq. Hot summer's day, that's the perception at the minute and we need... Now, those industrial ciders are starting to make amends and that. Craft is definitely struggling on that one. Yeah.

RB: I think you've nearly answered the next question! What is your view as to the market position relative to other drinks such as white wine and beer styles - the competition?

Interviewee_1: Yeah. The competition. What's the market view? Well, you see, unfortunately, there's a couple of issues hanging out in the wind here. So, the first is a duty problem. Our government puts our cider duty cutoff point at 6% alcohol and when we go to the next level of duty it goes up to 247 [unheard unit] per hectolitre. The problem is making, shall we say, high quality cider in a 750ml bottle, that is pure natural, fermented to their natural [level of alcohol]. Whatever. Most ciders ferment out around between 5 and 8.5 %. Now, if we could produce a cider of 8 or 7.5% and call it an apple wine, you know what I mean, we'd be in the category where we could compete with a white wine and compete very well. Because we have lower alcohol and the whole lot and it's produced in Ireland. Bla, bla, bla. But the problem is - number one: duty number 2: that we don't have the expertise in Ireland to do that, we don't have the variety of apples. The apples are out there but, we don't know how to deal with those apples, to extract out the real good aromas, the real good mouthfeel, the flavours, the long finish.

I think our market is more against the wines than against the beers. These are my opinions, they're not anyone else's. I think when we're looking at ciders going forward, the premiumisation of cider should be to come up into that category. If you've a 750ml bottle of cider and a 750ml of wine, that some would consider and actually pick a cider - that's not happening at the minute and it's quite difficult. I'm working with Liam below, and I've said to Liam about 750 ml - totally against it. You know what I mean? Doesn't see an opening. The market value is too small. The value of the market for that The value of the market for that doesn't exist at the minute. Liam is the boss down there, so he calls the shots. I think there's room to develop. Daniel has tried it - Ester is what he's brought out.

RB: Yeah - and that's a specific variety, isn't it?

Interviewee_1: Yeah. Elstar, that as specific variety. Like, I've made an apple wine here and I'll try to give you some going away. Because that's 13% alcohol, but it's nice though. Let me see. What is your opinion on marketing position?

The biggest problem there is regards to ciders and the beers, the beers get this duty rebate of 50% and the cider, the craft ciders, don't get qualify for that, the same rebate. So on the actual shelf,

you have a can of beer it is 2 euros 50 and beside it is a can of cider [for] three euros, thirty. The beer boys is enjoying a 50% rebate on the duty and the boys on the cider are paying the full whack. So, it's a complete distortion of the market from that point of view. Not withstanding that they are different drinks completely. Go on anyway, then.

RB: As a cider maker do you offer tours?

Interviewee_1: Now, as you know, myself and Liam have amalgamated there this year right? But last year, I did do tours. There was a couple. We're not very well set up for tours, because we don't have the right facilities. But I did. I talked to Blarney Woolen Mills and we could use their toilets and bla, bla, bla and so on. So I had a couple of tours here last year. Yeah. I did offer tours and the idea was that you're getting telephone calls 'will you take a tour?'. The bus companies wanted to come and this and that's it. I had a tour from the States. I'd a tour from Holland and a tour from where else? The big tour. The big bus came from, em, ... anyway, not a worry.... Yeah. And it was just, they rang and said 'can we come?' and I said 'yeah, sure, if you want to come, I don't mind'.

RB: The next question, and this is just because I know it was in the press last year. That there were calls from a lot of the beer makers who didn't have the various licenses to be able to sell on premise etc. That's where the question is coming from. I'm just trying to understand how many people generally are availing of the on-site....

Interviewee_1: Yeah, the new liquor license? I'd say a lot of people are availing of it. See. What you're meant, in essence, you're meant to offer a tour and then sell. But they could come in and look for a bottle or a case of cider of me or something like that, I'd be: have a tour of the orchard, have a tour around and I'll sell you a case of cider. Now feck off and leave me alone.

RB: So, it's not that this thing has made a huge change, shall we say?

Interviewee_1: No. But it has allowed people, if they wanted. See, legally, you're not meant to sell less than two cases anyway, and you're meant to sell the two cases to a retailer of alcohol. I'm not meant to sell you two cases of cider to you. You, technically, you have to go through a retailer. And in fairness, the Revenue don't bloody [care], as long as they get their duty. If they get their duty, they never ask a question, cos I've often sold one case to, you know, that fella down the road

and they don't care. Who cares is the police. The guards. Because it's a licensing law, right. So, no. I think it's a good thing, it's a very good thing. But then the likes of [another craft producer] would make big use of that.

RB: That's interesting.

Interviewee_1: Yeah. He would make good use of that. He would sell a lot of stock, he'd give tours. I don't know how the Covid thing has affected him this year. Longueville House - they have an old license anyway. I'm trying to rack my head around the guys. You'd have to talk to them. I don't think many of them do in-house tours. [Another craft producer]. Now, [he] would be the one that would do. You know [the other craft producer]?

RB: [The other craft producer]?

Interviewee_1: Yeah. He'd do a lot of tours. Well, he mightn't do a lot of tours. He'd have a lot of people come through, calling.

RB: And he's quite a range of stuff that he's offering, as well.

Interviewee_1: Yeah. It makes great sense for him, like. But then, you got the whiskey guys, and the beer guys. They're all benefiting from that as well.

RB: Ok. I suppose now we're jumping in more towards the tasting side of it. So, what is your view on adopting a structured, templated, approach to tasting cider? Like the template there? Now, you've been looking and working on it for quite a while.

Interviewee_1: Yeah. I've spent quite an amount, a good bit of time working on developing... What I was trying to do was within the Cider Ireland context. Now, I haven't done much about it there in the last while. Hey, it just sort of goes on the back burner. So what I was trying to do, was standardise in an Irish context - the styles of cider relative in Ireland. I don't have it here, but I have it on my laptop. I was able to identify 15 different styles of cider. You know what I mean? Ad then, how do you classify? Right, I identified 15 different styles of cider.

First problem with cider classification, cider style is ... is that the cider maker, first of all, does not know how to identify a characteristic in the cider. Right? So, if I give you a glass of cider and you say 'oh, that's oak in there, that's really strong oak' and then I taste the same glass and says 'no, that's vanilla in there, that's not oak at all. That's chestnut'. So, I mean, a couple of years ago there, I organised for Sensory Ireland to come down and do sensory analysis educate for cider

makers and the Tipperary Food Network, in where, they tried to educate the people making the product in identifying the characteristics that were in those products. And I think that the Irish cider makers are not knowledgeable, and I'm being very critical here. A pain in the arse. But anyway. I think Irish cider makers, including myself, we don't have enough knowledge in identifying both positive and negative flavours and aromas in cider. And for someone like you, who is developing a structured approach to this subject, you know, one of the weaknesses that will transpire from that approach is that the education of the producer to be able to identify the characteristics that are contained within the drink.

It's a big body of work, but that's what I'm thinking! You know what I mean? So, if I asked the guy who's there to identify, you know, let me see, ethyl non-ex or something, whatever that word is, like ...

RB: Ethyl Acetate?

Interviewee_1: Yeah. There's a whole pile of them here, but anyway. Would they be able to identify it? But then, of course, you got the abbreviation. Lets see, some people say... take an easy one, say 'butterscotch,' some people say... and the other one, dial, diel,

RB: Dialectic Acetate?

Interviewee_1: Yeah - that's the one. Dialectic acetate will give you the flavour of butterscotch.

RB: That's off malo - malolactic fermentation,

Interviewee_1: That's right, yeah, you're dead on.

What I'm trying to do - is tracing from the taste profile, identifying it. You know? That's butterscotch, that's dia..dia.. whatever [dialectic acetate], whatever and you then connected that back to malolactic fermentation. But if you take someone on off-aromas, how you get those off-aromas and how you get them back to both the scientific name and then to the problem? What was the problem that created that off-aroma and how you do identify it?

RB: ie lack of oxygen, lack of sulphate?

Interviewee_1: Whatever, whatever the cause, yeah, whatever and I think that knowledge is not...

RB: Is there two pieces there? Is there the 'how do I recognise aromas, flavours?' and potentially, an answer for that is, if we all get a baseline of sample bottles from Asturias in Spain and we get VA, nail-varnish, type of smell. And say to everyone - here's the baseline for what that is. And say, some people get smokey-bacon in West-Country over in UK. That's what that tastes like. So,

sort of give them baselines. But really interesting is the focus on, and I've heard it from the states as well, is trying to teach, if I can use that word, to the cider maker to help them recognise what's an off-flavour. It's a particular theme I keep hearing.

Interviewee_1: Yeah. and that's what Charles McGongle piece of work, and I was at his session and he's absolutely brilliant. That's the point I was making to you earlier in the day. Is that we went through so much identified off-flavours on the day by him, that we could assemble them in our minds. Quick enough, you know? It's nearly like muscle memory. You know what I mean? You have to not alone memorise the taste and aromas, but you've got to connect to the descriptive of the words.

RB: There's an interesting one in the wine world, where the French have a thing called Nez-du-Vin 'nose of wine'. These small little bottles. There might be 150 of these tiny little bottles, like essential oils, but each has a different smell flavour, but the specifically have faults in there as well.

Interviewee_1: That's right. And, that's what we tried to do when I brought down Sensory Analysis Ireland - you've come across Sensory Analysis Ireland?

[Brief discussion as to Sensory Analysis Ireland]

RB: So, would you have thought about using a structured sort of template during a tour, for the visitors?

Interviewee_1: No, I don't really think so. What we really done was justwhat we just done was... what was the question: would you consider using? It would depend on the profile of the visitors coming. So, we had a visit from one of the girls from Blue Bee ciders in the States, but for her customers here. And in that instance, I think, you really wanted to get something out of the event, you would use the structured template. But, if you're just a general tour coming, I just lash up the ciders, have a good chat, give a bit of spiel. There'd be a level of interest - it wouldn't be worth it - be lost on them. So I think it depends on the visitor, the profile of the visitor.

RB: that's actually the next question which I think you've answered. Jumping down to industrial barriers, whether they're real or perceived to adopting a structured approach generally and specifically to cider mill tours. How come the industry itself hasn't adopted a systematic structured approach to cider tasting?

Interviewee_1: We're too young. The industry in Ireland is too young. So, Daniel is the first of the blocks, even though I was before him, but it just didn't work. An interesting one there. Daniel is the first of the blocks in Ireland. He was the first craft cider maker in Ireland, right, so he's the first one to develop, let's say, craft ciders in Ireland and he's a real guy to ask this question of.

There's no industry barriers to adopting one - it's the fact that there's not one out there to adopt, that's Irish. We can adopt the Europeans, or the Americans or the British or the French or whoever, but there's not one there to adopt.

If you create one, then there's one to adopt.

RB: That's interesting. You're saying 'for Ireland'. By that, do you mean for tasting a systematic approach, to fit a profile, to then move on from profile to group to the classification of a style? You had 'style' in your mind.

Interviewee_1: Yeah, it's for Ireland. Like, I mean, there are two ways of looking at it. You can say, we'll adopt a European or worldwide style right? And one of the questions I pose to you. Where are you with it?

RB: And that's the nuance. I'm saying is, parking the style and getting people to approach tasting and given their tasting notes, a profile, in the same way. It's only step one and two. Style is step 4.

Interviewee_1: Yeah, yeah. But what's the question then? To adopting a tasting approach?

RB: Yeah - an approach, not saying style.

Interviewee_1: Jezz, you've worded that well, in fairness to you!

[A number of printed pages of cider flavour wheels are on the couch in front of interviewee.]

But see, adopting such a tasting approach generally and specifically on cider, you know, it's not there. We have in front of us here, on the couch, lots of lexicons, if you want to use that word, right. But they're not structured. Their tasting approach is not structured - we don't have a structured approach.

RB: But are we catching ourselves up? Saying, we don't have a structured tasting approach 'cos we can't define the Irish style.

Interviewee_1: Hang on, you're telling me you're putting style as step four.

RB: Exactly, exactly. If we said, here's an approach to tasting, the systematic approach, you got this and you through appearance and all of that...

Interviewee_1: You'll come up with a style at the end?

RB: You'll come up with a tasting...

Interviewee_1: Yeah, a tasting profile. You saw this tasting lexicon, didn't you? [Referring to separate page of taste descriptors.]

RB: By profile, I mean, [the] result coming out of tasting using the systematic approach.

Interviewee_1: You saw the Spider one didn't you?

[Brief interlude as interviewee searched for spider profile (Axis based) printed sheet].

Interviewee_1: Look, we don't have a structured tasting approach.

RB: Why not?

Interviewee_1: 'cos I think the industry is too young. Not too young; it's that we haven't developed it. No one is taking the time to sit down and develop it. And then it comes back to the other thing ... is, is, is ... if I develop it, it's a [mentions name] developed approach - sure [name] up above would say sure that feck'n eegit [fool] knows nothing about tasting cider? How could he develop? How can his be the one to use? So, it comes back to the question of education, of identifying the characters that are inside, inside in the drink.

RB: Yet you compete and work together as an industry.

Interviewee_1: Yeah, I know that but the two of them work hand-in-hand. So, if I developed it in the morning and say 'here's the thing, here's the science behind it', they'd all just adopt it. That

would be that. I'd have a few arguments here and there and everywhere but I mean, if you take the main guys, they'll get it over.

RB: That's why I'm interested in the states, and this is based from over there, from the wine world and the work they're doing in the stats and extending it out.

Would there be any beneficial outcomes of adopting such an approach?

Interviewee_1: Oh yes, I think so, yes.

RB: What would they be?

Interviewee_1: Well. Consumer education and, then, developing that into marrying that into profiles of cider and marrying food choices or food pairing. Ah, no. It would be very beneficial. Not only that, but also, from a competition point of view, from the whole lot would really come through on that.

RB: There is one in grey there. If one did have, like [other craft producer], an offering to the public of a tour...

Interviewee_1: I have the wallet. Do I have one I can give you? Let me check inside.

RB: Hold on, I'll stop the interview.

Interviewee_1: Oh, yeah. Let me see...

[Recording Paused. Technical issue encountered whereby the recording did not recommence despite pressing the unpause button and continued to speak with the interviewee for approx 15 minutes. Conversation during that period included a wallet-sized 'passport' card which informed tourists of different food and beverage tour offerings. Also raised was the concept of creating a wallet-sized systematic tasting approach card and bringing the idea to Bord Fáilte / Fáilte Ireland [body promoting tourism in Ireland, both at home and abroad] and Irish cider producers.

Having later discovered the technical issue impacting this recording, a follow-on interview, via Zoom (due to COVID-19) restrictions was organised.]

Interview One continues: Wed 16th September, 4:30 pm, utilising Zoom.

RB: [Thanks and explains issue with end of previous recording and the technical issue which arose. Re-starts interview.]

Taking a step back, my question was: what would you consider as a beneficial outcome of adopting such a formal structured approach on a cidery tour? And, you had mentioned how the industry itself was quite immature, to agree a standard structure per se. We started discussing the wallet-sized tasting template approach which could be provided to visitors to highlight the brand. So if we take it from there. My understanding was that you had quite a positive reaction to the card concept.

Interviewee_1: Yeah. So, IBEC has the Cider Association of Ireland, sitting with it there. So, there is Cider Ireland which represents the craft cider makers and then there's IBEC which represents the cider industry. At that table sits the cider makers, say both craft and industrial, if you want to call them that - I don't know if they'd like that term, but anyway - as part of the, as part of the promotion with IBEC and in consultation with Bord Fáilte, or Fáilte Board, whatever you call it. They were looking at setting up this passport thing. Like. And I suppose your idea, really comes into play on that now. It's that idea now is what were discussed the last day, was the recognised approach to the tasting profile...and I think it could be applied, not only in cider but also in beers and whiskies as well. So it'd be a much broader book than just cider.

And what you're suggesting there in the structure approach to cider tasting would work really well with the passport. So, if you had a passport for [mentions cider producer]. If you had a page for [producer's brand] Cider and along one side of the page, you had the tasting profiles that you've outlined and then a score at the end and if you had one for each of the cider-makers that's to the tourist trail, say the cider tourist trail - starting in the North and ending in the South, like - that would be a brilliant thing to do for the consumer that was interested in doing such a tour - say, a food-beverage experience tour. Like, so yeah.

RB: Yeah. And jumping to the questions. In your view, how would a formal tasting approach and or a tasting card, enhance a visitor, a tourist's experience?

Interviewee_1: Well, it would be structured approach, number 1 and number 2, then, it would, I think, from a visitor experience point-of-view, it would lend to the educational profile of the cider within the person who was doing the actual tour. It would open up, it would challenge their thoughts and their conceptions or misconceptions as to the tastes of cider. Or beer or whiskey, whatever way you want to put it as well, you know what I mean? I'm sure you could broaden the thing. The passport would have, you know, categories for each of the things. Distilleries might be involved and Eight Degrees brewing might be involved and Bushmills might be involved, you know, and Tullamore and Tully's, you know, what's the name of the guys in Dublin?

RB: The whiskey guys? The new guys? Teelings?

Interviewee_1: Yeah, the whiskey guys. Yeah, and Murphy's and what do you call it in Carlow, like? So you know, when it focuses a person's mind on something, they take more out of it when they have a structured approach to tasting and I think it would be very beneficial to the consumer or to the tourist or anyone, for that matter. Even the Irish that go around and have a look at it. It would be very beneficial from an educational, food tourism point of view - all wrapped in together.

RB: Do you think that tourists or the visitors would discuss it amongst themselves?

Interviewee_1: Not unless they were within a tour themselves or group, a group of 15. Like, we had a group here, the BlueBee cider company came over with a group from the States and they had 20 or 30 in that tour group. Now, if you have 20 or 30 within a tour group and they're traveling within a group, I do think they would discuss it. But, if you have an individual traveling, like, as an individual, unless he or she is with partners, I think, they'd discuss it within the partner confines but when they go to the pub, they're not going to go up to you and start talking about such and such. Where[as] they may discuss it is with another cider maker.

RB: So, it is people who are interested in cider or specific beverages, on a tour - giving them the education, the knowledge, the experience - are likely to to discuss it between themselves on that tour?

Interviewee_1: I think they would be likely to discuss it. Like sure, if they go for a meal in the evening and they're all sitting down and they were at James O'Donoghue's cidery. Sure, you're going to get lambasted and your ear is going to be hot over what they're giving out about, you know what I mean! If they had a structured approach, it is going to add to their knowledge and

really structure how they're going to view the other people that they met on the tour, the other cider makers on the way. Or, if it's whiskey, the other whiskey makers. Or, if it's beer, the other beers.

RB: You think they'd have a bit of craic themselves discussing it, taking about it and going through the template?

Interviewee_1: Ah yeah, sure. I'd say so, yeah.

RB: Second last question. How do you see the general confusion to the cider language or lexicon around styles being resolved?

Interviewee_1: Well. First part of that is in Ireland and the greater body, the public - there is no lexicon - and the style is Bulmers style. You know what I mean? Trying, in the industry, the craft cider industry, trying to get the guys to agree on a lexicon... repeat the question.

RB: How do you see the confusion to the general cider language or lexicon around styles being resolved?

Interviewee_1: Yeah. [long pause] Well, there is definite confusion 'cos Alltech had one. Alltech had a competition and all the cider and beer had one criteria and the Blas na h'Eireann have an ongoing competition and different criteria so there is confusion, there's no doubt about that.

The issue is that there is not standardised approach to the styles of cider. So, if we take your analogy to say take the lexicon language to reflect [pause] ... to reflect - I don't want to use the word style 'cos style is the one coming afterwards, isn't that right.

RB: It's like grouping or something.

Interviewee_1: Yeah... to reflect the conclusions for the tasting analysis, that's the lexicon, that develops the words that you come up with, to describe what your tasting which is partly the lexicon. And then, another part of the lexicon is developed further to include the words for style of cider.

So, if you want to solve the issue of the confusion, we have to solve the riddle of [a] standardised approach to the tasting of cider to give us the answers to develop the styles. And I think that's what you're after [creating].

RB: It's certainly one of the questions I'm asking.

Interviewee_1: There's confusion no doubt. But to get rid of the confusion, to establish the styles, will take a structure approach but also take the education of the producers to understand what a taste is and to understand the difference between tastes.

You take, you know... You put 10 of us in a room and you give us all the same bottles of cider or tastes of cider. I guarantee you that you'll get 10 different answers.

RB: Would they be vastly different or generally the same area?

Interviewee_1: If Liam and myself are anything to go by, they'll be completely different.

RB: Remember I mentioned the Nez-du-Vin thing, I'll forward you an email link on that.

Interviewee_1: Yeah. When you were talking about sugar and getting it on the front of your tongue the last day, I mean, that is something which we could standardise fairly quickly. And we could educate people and standardise them. But as you get more into competition and complexity, lets say on the green page here. You know? Jeeze! There's very few people in the population with the required taste profile analysis [ability] in their mouths, you know, that's linked to their brain that can tell... I think it's only 3 to 4% of the worlds population who have enough, who've got that connection that they can use, you know what I mean? Most of us are not educated enough to understand it.

RB: It's just practice thought as well.

Interviewee_1: It is practice, but you see, if you never went to school and never had anyone to tell you green, yellow, gold colour - you saw green, yellow, gold every day of your life but no one every told you what colour green, yellow, gold was ... you could call green red, and yellow, blue and blue pink - cos that's the words you put on it. Same with analysing the cider.

If people are analysing the cider but they're not trained in identifying the right taste profile with the right description - how are they going to know?

You have me working inside in a cidery and I'm trying to ascertain what the hell is going on in that cider. But, I don't have the, what's the word, lets say knowledge - I don't want to say lexicon cos thats a different descriptive here - you know the flavour wheel there of all the different

descriptions for flavour in a cider? Well, I don't have that there sitting in my brain to put against what I'm tasting.

And what I'm tasting? Am I calling a 'yellow' style a yellow flavour or am I calling that blue or am I calling a 'blue' flavour pink? You know what I mean if I can use the colour terms?

So. To standardise. To educate, to standardise people to know what they are tasting is also going to be an important factor to recognise. As I was showing you, Charles McGonagle over in the States [referring to a printed out cider flavour wheel, descriptors], when we did that tasting, it was absolutely brilliant 'cos he was able to standardise the whole approach to it and everyone was given something that tastes the same, and he went around the room and asked people 'what did you think?' and 'what score did you give it?', and 70% were able to come close but then the scores between 1 and 10, did you think it was bad or terrible like and the scores were wildly apart. So, I'm only presuming 70%, I could be wrong but say 70%, but even within that 70%, that score of how strong or how bad, you have here the medium plus or medium, was way way apart like, it wasn't together.

So, I think that is going to be one of the big issues.

For me in the cidery, I know what a good cider is 'cos I know what a bad cider is and I'm able to identify the off-aroma's and the off-taste more readily than I can identify the positive aromas and the positive tastes. So, for me, when I'm in the cidery and it smells, the aroma is good and they're not off aroma and the taste is good, there is no off-taste. Well then, to me, the cider is good.

Now, the next stage of my development is 'how do I define that good cider?'. You know what I mean? How do I classify that good cider? I hear guys taking of vanilla and butterscotch and this that and the other, and I'd be scratching my head, like, and I say 'fuck it, I don't get any of that!' Now, I'm slowly... I know oak and I know brambly and I know butterscotch and I kind-of know vanilla at this stage. I know some of those aromas coming through. I know cinnamon, nutmeg and those 'cos I use them in cooking. But, to get the more positive aromas you're looking at in a white wine. I can pick up the gooseberry, peach. If I was drinking some of the red wines, I'd pick up blackberry, blueberry coming through. You can pick up some lovely notes. In an Argentina Malbec, some lovely tannins coming through, you know?

But to develop all of that, Richie, is a challenge.

For someone like you. You said the last day, you're doing this as part of a Masters, right? And I think one of things, and I don't know if you're interested, one of the great areas would be if you could organise a course, say, on identification of flavours in, in alcohols both positive and negative. You know what I mean? Could you run a course like that? Lets say, for cider-makers or for general public so that when they get a glass of cider, you'd have in that glass of cider a whole pile of off-flavours and then a whole pile of positive flavours, positive flavours. That would then form an education and the likes of myself would then pay you so many hundred of euros to go to your course ... to, to learn the right identification to go with it. I think that would be well worth while. You know, if you could. I'm not saying you should do it, but I'm just saying it's an opportunity to exploit this from your point of view.

But on the reverse side of that then, it's standardises that industry approach to it very quickly. And therefore, you come back to the question - how do you get rid of the confusion? To get rid of the confusion, the first stage, is to start, as you're doing, with a standard approach to tastings profiles. And the second part to tasting profiles is is standardising the knowledge within the people doing the [tasting] profiles.

RB: I hadn't thought of that. Jumping towards the last question, to finish off the more formal questions. Could you see cider mill tours, and providing knowledge being used to grow cider mill tourists into cider advocates?

Interviewee_1: Yes. Repeat it again.

RB: Could you see cider mill tours, and providing knowledge being used to grow cider mill tourists into cider advocates?

Interviewee_1: Does it work for the wine industry?

RB: For the tours and some knowledge? People walk away with lots of enthusiasm, but it depends on the tourists and what knowledge. They don't provide the systematic structured tasting in a wine tour.

Interviewee_1: That's true, but in a wine... I generally think those people who... The reason I put the question back to you is that you're familiar with wine and I think the same. See wine and cider are the same thing at the bottom of it all... you know. If I divert for just a second.

The wine industry has been in existence for hundreds of years and the people in the wine industry have been studying wine for that length of time and they've been studying the grapes and they have made wine for millenniums and put science together for wine making and at this stage, it's come to where it is today and tomorrow it'll grow further again.

The problem being, in cider, the same approach has not been taken, not to cider, but to the apple. The same approach hasn't been taken into the apple as it has been the grape. And I think if you were to wind back to the clock to the start of the millennium when the grape was being taken into consideration to being one of these lovely alcoholic drinks that made wine and put the grape and the apple side-by-side back at the start. I bet you today we'd have an apple wine industry to equal the grape industry. But because the poor old apple only had half the alcohol content of a grape, everyone throw the apple out the door, like. And because of that, then.... apple development as a wine has been poor, the poor relation to the grape industry and therefore there's more to come up. Ask me the question again:

RB: Do you see cider tours and providing knowledge, being used to tourists into cider advocates?

Interviewee_1: Hummm... If I was to be a real pain in the butt now, I think, you know, to answer that question takes, in one word: no. It's not going to work now. Why do I say this? I say this because, and don't quote me on this, I think that the level of expertise and product diversification and product premium-isation within the cider industry within Ireland is not good enough.

It's immature, the industry. In Ireland, it's the population, we just don't have enough people. You understand me? We're struggling to get volume in people. What's, it 5 million people in Ireland? There's 5 million people in the Greater Manchester Area. There's 14 million people in London. So, part of our problem is the population - we don't have enough of a footprint of people to exploit, to develop the industry.

[Conversation as to Cider-Craft Magazine from the States.]

What I'm saying, it's about the diversification of cider and the ways, the styles of cider. I think, I mean, we're not doing it.

Here's a lovely page about ciders and recipes that go together. That's more education. Hold on, I'm looking for something else... here - see this?

[Displays a page from Cider-Craft Magazine with a large number of different styles and bottles displayed.]

RB: Yeah, that's the diversification of styles

Interviewee_1: Yeah, where is that in Ireland? Barry Welsh in Kilahora is the only one out there doing something like this. And, Daniel is very good at it as well. But the rest of us are just not at the races. If you have a consumer going around, they need to be inspired in what they are looking at and I don't think the rest of us are at the races yet - that includes myself now. I'm lagging behind. I need visual interaction. I need to go somewhere and pick it up in my hand and talk to the maker. Then, I put it all together...

[Discussion as to dyslexia.]

There's the problem here in Ireland - we're not at the races yet. Personal opinion.

RB: I'm listening to you, that's all I'm doing.

Interviewee_1: It would be great for you to get the feedback from [mentions other cider producers]... It would be really interesting to touch base with you then to see how it goes for you.

RB: I got your text, I'll definitely get back to you.

[Following the first interview, the interviewee texted the interviewer asking to be kept informed of progress, findings and offering overall support to thesis and activities.]

Interviewee_1: I'd be really interested in what you're doing, 'cos I was trying to get it off the ground myself. What you're doing is just brilliant.

RB: I'm going to pause the bit I was recording, as I'll type it up

[Interview brought to an end.]

Interview Two

Date: Friday 11th September 2020, 4:30 pm

RB: [Starts interview with introduction and background.]

What is your understanding of the public's knowledge or perception of the different cider styles?

And by styles I mean Spanish,

Interviewee_2: Almost Zero. Almost zero. It's a little bit, I wouldn't say infuriating, it's a little bit difficult for a cider maker, when you put so much effort into it and there is very little understanding of what a craft cider is. It's like we're very much the poor relation of the craft brewers who have gone through a renaissance and there is so much interest in it and knowledge in it as well. But when it started off, no one knew what a bloody IPA was. Whereas now, they're all American, Irish IPA and all these different styles and people are really into them and when you have that discussion: 'oh that's too hoppy' or 'I get, you know, a bit of the bitterness' and everyone has a bit of chat on that.

Possibly it has waned a little bit now, but I'm not sure and possibly there is a little bit of an opening for cider to come in. How that's happens? Does that happen organically or happen through a push through the industry, I think possible a bit of both but all of the work that we put into our ciders and the ciders are so different.

Like, my cider, every year is different. Not to mind the cider in Cork or Meath or Northern Ireland. They're all completely different. We all have different styles and none of this is picked up by the consumer. And I know, I understand that and understand where it is coming from. We are, cider is like, about, depending on what you read, cider is between 6 and 8% of the long-drinks market, and craft cider is about 1/2% of that.

RB: 0.5% overall or 0.5% of the 6 to 8%?

LM: 0.5% of the overall market. But of the cider market, craft cider is like em ... there are like 10 cideries and they're doing ... look you could calculate it. So look, I understand it. We are really minuscule in terms of the overall long-drinks market but it is annoying. All of the effort you put in. When we do our samplings, we get a lot of people saying 'no, I don't like cider'. What they're

really saying is ‘I don’t like Bulmers’. And I don’t have a problem with Bulmers. They’re the ones who have changed the cider from a kind of very, very cheap drink which wasn’t allowed in pubs. Like. Back in the 1950s and the 1960,s you simply weren’t allowed to drink cider ‘cos it was a vagabonds drink.

RB: Scrumpy type of thing?

Interviewee_2: Yeah. It was just drunk in ditches and that was exactly the same in the States. And when you mention cider to an older person, it was like, your know, your down-and-outs drank it.

RB: I know it’s Perry but then you also had ‘Baby Cham’.

Interviewee_2: Yeah. And that became the real cool thing back in the day. Exactly. So, my thing is we would be very much of the opinion that a cider could be a close cousin to wine. We can make a really good dry cider that would be quite similar to a Chardonnay.

RB: Is there *an* Irish Cider Style or is there a multitude?

Interviewee_2: You see, I don’t know. You get, you get, you know... thats an interesting question! Is there one ? They’re all so different. Let me see. Irish cider would have a lot of predominately eating apples in it. That’s the one thing which would be consistent. When you’re talking about an Irish cider style, you’re talking of consistency.

RB: Are we’re talking about East England [style] ?

Interviewee_2: Yeah. You’re talking about East England, yeah. Exactly. So, whereas the English traditional style would be predominately tannin based bitter-sweets and sharps as well. We don’t have any sharps over here at all. So yeah, it would be predominately, lets say elstar and a touch of bramley and stuff like that. So, you’d have an East English coast style - I’d say that would be more predominant in Ireland.

RB: But, it’s not one that trips off the tongue; going ‘this is what an Irish style is’. It’s more of an ‘eeeggghhh’...

Interviewee_2: Yeah. You could put it in as an East Coast cider and ... but, they’re all so different. Like, the Stonewell is so different to my cider. James’s cider, Longways cider with a medium dry.

Not only that, all of that, but the definition between a dry and medium is... You could... My dry, which is really kind of like a medium dry, and then Tempted, up in the North, would have an English style dry which would be really dry.

RB: Davy?

Interviewee_2: Davy Uprichard. Yeah. And then, Daniel would have a dry which is closer to my kind of dry. A kind of medium dry. And so on and so on. They're all so different. We don't have consistency. To have consistency there would be good.

RB: This is a, more of times, during the day or the seasons, type of question. What's your understanding of the public's perception of when to enjoy cider ?

Interviewee_2: The public perception is to enjoy it during the summer - or are you trying to ask about during the day ?

RB: I'm really trying to understand, do the public associate different styles of cider, a dry cider as an aperitif, have a sweeter cider later on, all of that?

Interviewee_2: Absolutely not. Ah, no. Jesus. The Irish consumer or the Irish cider drinker is miles behind that - agh, no.

RB: Is that an education thing ?

Interviewee_2: Yeah, yeah. Well, it goes back to your first question about what is the, like in relation to the cider market. Where is the cider market? Where in Ireland and the consumer perception of it? It goes back to that. Those two pieces are in education.

But there was so much work put into the craft beer. Inside in Centra, you get a leaflet saying what is this beer, what is dark beer and all these basic questions and that is fabulous and great. It's really what you want. But that was going on for 10 years.

RB: And you've nearly answered this question. The cider market positioning relative to white wine, beer styles?

Interviewee_2: Now, [another craft producer] is interested in saying 'it would be nice to make a 750ml bottle'. That's what [the other craft producer] wants to do. And we'll brand that as a kind of an Irish wine and have it as a high-end Irish cider. And I said 'grand, we can do that'. And Stonewell do it. One of their bottles is kind of like a champagne cider, you know, it's very well

presented and everything. But I won't imagine it is selling very well, at all. My Mrs, you know, she loves Prosecco. But if she's, like, the choice of going to someones' house with a bottle of Prosecco or a bottle of sparking cider in a 750ml bottle, which I think we could make it really fabulous. But it's the perception of it. Going into a house and giving someone, the perception would be like 'oh, yeah thanks'. [Interviewee makes sarcastic face.] Now, obviously coming from the like of me, you're going to say 'yeah, that's something special'. But from someone else, where theres nothing to do with cider, it would be 'What, what are you doing ?'. Or else when he's gone, it'd be 'he feck'n dropped in a bottle of cider! For God's sake! Cost him nothing'. Probably cost him twice as much.

So, [the other craft producer] would also say 'it'd be really good to get bag-in-the-box still cider'. You could put it in your fridge and just open the tap and it would last you for three days and all that. No way, forget about it. The market is not there.

We would probably do a drink like that like a halo brand, just to say we have it - as a really high end cider. But in terms of sales, commerciality, it ain't there. And the market is not mature enough for that, at all.

RB: Moving on from that area, as a cider maker, do you offer cider mill tours ?

Interviewee_2: No. Not at the moment, but we were looking at doing it now. There is a harvest festival on here. There's a harvest festival on in Waterford. We have the festival of food here in [location] and I was scheduled to do that - to bring a crowd in here and just give them a bit of a cider course, with the press and all of that kind of malarkey - and it was cancelled. You know. Due to Covid and the whole thing, with the new restrictions. They had to cancel the whole thing. But no. I'd be keen to do that. This place is set up ok, we have two separate rooms. So, we would have the inside room as kind of the history area and tasting room and in here is a bit of chat and whatever and the production area out there. So yeah, we would do that. But, to be honest, it is a cost thing. And we could probably. When [the other craft producer] is here on Monday, Wednesday and Friday, we could organise a tour. He'd love to do it. So yeah, I would definitely be open to it.

RB: The next one is, I suppose, a general one about the new licensing laws. For people who do provide tours, there is a new license with certain criteria attached, new licenses are attached - the Intoxicating Liquor (Breweries and Distilleries) Act 2018. Whether that's applicable here, viable here? Do you know if there are many people who have availed?

Interviewee_2: Yeah, as far as I know, if you want to sell a drink after a tour, serve a drink or sell to people, you need to have a license to do that. But that licence is available and you need to apply for that.

And I think, yeah, that would apply to us. There are people, and I haven't gone about it, but the local brewery - [mentions local brewery] just down the road there - have and there is quite a lot of provisions in it.

RB: Yeah, ticketed tours, education, there's quite a lot.

Interviewee_2: Yeah, they cover themselves quite well. But to answer your question, yeah. I don't think...

RB: Ok, moving on. I suppose - beginning to move into the tasting structure. What is your general view of adopting a structured approach to tasting? Something which is templated ? First of all, what is your view on adopting it? And the second question is, what is your view on the one that you're looking at there?

Interviewee_2: First of all, for [the other craft producer] and myself here, it is very important that we have a structured systematic approach to tasting. That's important because then we do the same ... like, in the real word, making cider, it's difficult, very difficult to get consistency. So, one of the things we have, we are making our Medium-blend now and we were trying to balance it with last years Medium and it was so difficult to do it. We started tasting. Actually, the dry was the first one we did in June. And we tasted that and both of us, we said ' I can't believe the amount of tannins in that' and like 'what's after happening to it?'. Because we would start of with 50% Elstar which is an eating apple and doesn't have any tannins really and so it would start estery and so on. And we would drink this and it would be like 'where have all the tannins come from?'. This thing is so full' and we would have to try and match those tannins with that dry and we just couldn't do it. The apples weren't mature enough.

So, what we need to assess all of that, is just a constant 'same structure, all of the time, so that we can assess what the difference is in it'. So, for instance, if there are tannins that are maturing in the bottle over a year, that if we use the same structure every two months and taste it, we can see that change happening. So it would be critical to have the same system.

RB: How come the industry hasn't adopted something like this before ?

Interviewee_2: Yeah, well for us, where would you use it in the industry? You're talking of collaboration between different cider makes really ?

RB: Not even collaboration, I just find, as you're saying here, to be able to measure something in a repeated manner - needs to have have a structured approach to the measure. The result is whatever the result is. But it's the consistency of the approach to the measurement.

Interviewee_2: Exactly. It's key.

RB: So the result is what the result is. It's for yourselves. It's the industry, industries perception, collaborations, the public?

Interviewee_2: But, I would believe that each of the cider makers would have their own systematic approach to tasting and to assessing each of their ciders.

RB: Yeah, but then we have, and I don't want to approach styles... But people would be like 'this is dry, this is medium dry and someone else will say, use different words, use different versions. Unfortunately in styles, lots of it just focuses on sweetness levels! But, as we know, within structure there are other things. Tannins and all the rest. But there's no consistency of language. So the consumer is going 'I've no idea... sweet, not so sweet, a little sweet'. Whatever the language. It's trying to educate them to - this is a complex product. If you understand some of the complexity, you'll get more value added; hopefully raise prices and the industry will re-enforce, strength up, lift the industry, tool the industry up, educate the consumers.

I've looked at some of the various books and lots of them use approaches, but they all use inconsistent approaches. Some of them refer to tannin as a taste. All different things happening. Writers writing about stuff and they are not cider makers.

It's the cider makers who, if they can agree a structure, a systematic approach, then everyone else looking in can understand what the cider maker has produced.

Interviewee_2: Yeah, I think you're absolutely bang on. I think you've absolutely hit the nail on the head.

And, one of the things which I'm trying to do with IBEC, I'm trying to get them to... We go through all of the legislation, and one of the big pushes is the VAT reduction and we're trying to get the same excise reduction as the craft brewers 50/50% and there's a big push to do that. And, we do that through IBEC as an industry body. But where I'm coming with them is like, I'm saying, we are using you as a promotional tool, we want the consumer to be more educated to craft cider and see the difference in it. But that's not the right place to start. The right place to start is what you're saying. The right place to start is the consistency of the terminology of what ciders are. The lexicon...

RB: In the states, they're trying to get the lexicon. And, it's not just the terms and the approach, it's also agreeing the styles. So, let's park the styles cos that's very difficult to agree. But let's agree on how to look to start to taste, how to approach it, the result of the approach is the taste profile. If you get lots of ciders that have the same taste profile, you have a group. From their taste, you group them together. Step 1, the approach, Step 2 is the resultant profile, Step 3 group them together and a potential step 4 which I'm not stepping to ... is the group a style, a classification ? and I'm not going to step forward on that.

Interviewee_2: Yeah, but I won't be afraid of that. I can see your nervousness on that. I won't be afraid of that, at all.

I don't think there's a problem with a style, it's just because the terminology and how people describe each of their ciders is so erratic. So individual.

RB: Yeah. Let's say, after the other questions, we come back to this ?

Interviewee_2: Yeah. right.

RB: So, I've asked for your view on adopting the approach. Question 9. Would you consider using a templated structured approach during a cider mill tour, when bringing tourists, visitors here ?

Interviewee_2: Yeah, absolutely. Of course. So, everyone will get that [*pointing to print-out*], will be part of the experience. Definitely.

RB: How do you think such an approach will change or influence the tourists experience ?

Interviewee_2: I think anyone who has gone through that will consider a cider like a wine..

[Phone Rings.]

RB: Do you want to take that ?

[Interview recording paused, but doesn't not restarted after pressing 'unpause'. Approximately 5 minutes, 14 seconds are embedded iPhone recording, but do not play any sounds.]

Interview Three

Date: Thursday 17th September 2020.

Online, MS Teams

RB: [*Starts interview with introduction and background.*] And you were saying?

Interviewee_3: I was just saying [that] one of the challenges we have, listening to the broad points that you raised there, is - the size of the market that we have, the domestic market, it is too small and to make viable businesses you need a consumer base that has enough people who are interested in esoteric differing cider styles to make it a viable one - and I think that is one of the biggest challenges which we face as a sector. Frankly, depending on who you talk to and how you classify it, shall we say, all-juice cider probably only counts for, and I'll include the one's who have water and or juice, probably accounts for only 3-4% of the overall 69million consumed in the Republic. And I think, we are going to find it very difficult to progress that until such time that we have a more educated consumer, a larger customer base and those two things are very important. Do you want to crack on with your questions?

RB: Yeah. [*Provides overview of a semi-structured interview.*]

What, in your understanding, is the public's knowledge of the different styles of cider? For example, Spanish, French or West-Country-English styles?

Interviewee_3: I'd say poor and vague. I'd say, for example, a lot of people might be familiar with the French style of cider in creperies when they've been to France or scrumpy that's west-country in England. But if you started to talk to them, for example, about Asturian or Basque cider. I think there'd be difficulty. It's poor, generally it's poor.

The characterisation of, and unfortunately I think it's what drives a lot of what we, as all-apple or all-juice cider-makers produce is, we have to tailor our style to what the bulk of consumers in the island recognise as cider - which is limited. It's a testament to the success of C&C.

RB: The Bulmers effect, in a way?

Interviewee_3: Yeah. Well, the Bulmers effect, I'm sure you're familiar with it, in a way, in the early naughties was responsible for reversing the image of cider in the UK and a global basis. So they got massive credit for that. But unfortunately, to achieve that, you've got to appeal to the lowest common denominator and that is what people identify cider as, unfortunately.

RB: Is there an Irish style of cider?

Interviewee_3: I think there is probably an Irish craft style and again, I'm making the distinction between industrial *scale* and non-industrial scale, I think, because irrespective of what anyone may say, it is in its infancy in its modern manifestation. Because, I guess, in the Republic, we were the first on the block in 2010 to commercial a cider. Longueville House then came along shortly thereafter. But we're talking a time span of 10 years, which is a very short period of time. And I think a lot of historical knowledge and expertise as, for example, we're finding on the Brandy project which I'm working on, was lost.

When, for the vast majority of the people who are now making cider in Ireland, went and got trained, usually in the Cider Academy in the west of England and I think that was good in some respects and bad in others. Good in so far as it helped ensure that, by and large, by and large the products which we produce as ciders are of good quality and they are relatively refined in flavour. On the negative side, they're not as adventurous as perhaps they might be. I think that's from a historical perspective as well as to the structure of education which we all received. I went away and got educated, James O'Donoghue went away and got retrained. Olan McNiece's sister went away and got retrained - all by the same people. And the list goes on. Out of that, you're never going to find the sort of erratic quality issues which you do, say for example in the French or Spanish or UK market. I have a theory for example that West Country cider is not drunk outside of the West Country, UK. And, the principle reason for that is that it is not particularly palatable. And it was poorly, fairly cruelly fermented and elements which would normally cost you points or poor fermentation practices became associated with quality. But, you won't find much west-country cider, despite the vast quantities produced and consumed, you won't find most west country cider travel outside of the west country and coming back to the initial point of the question - I don't think that is much of an issue for most Irish cider makers. [Erratic characteristics].

So, I think we do have a style. It's early days. It's, within the context that I'm talking about, it's very mainstream and what we need to do is stretch our wings. Some of us are doing and some of us are pushing the envelope a bit. Probably not making any money. For example, before coming on this call, I discovered that one of my wife's apple wine ciders had won a silver in the International Cider Challenge. It's a great cider wine. We think it's fantastic but you sure as hell couldn't make a living out of it, if you were selling it. So, I do think we have a style. It's in its infancy and I think we'll grow. I hope we'll grow.

RB: Is that the Elstar? You guys do a single variety wine and is that the Elstar?

Interviewee_3: We have the Elstar. We didn't put that into any competition this year. So, no. It was a single variety bitter-sweet which we aged in oak barrels.

RB: Which, I was going to say, was a west-coast of England. There's a lot of bitter sweets, Kingston Black et cetera which we don't really grow here. So, you are saying you think tradition has allowed fermentation faults to become style in West Coast UK?

Interviewee_3: West Coast of England, yes. Definitely. I won't say Wales. West coast England. And I say the same with certain aspects of Asturian and Basque cider.

RB: The amount of V.A which comes off them? Or?

Interviewee_3: Yeah, yeah. I think so. That is very much considered to be a quality but I think, one of the things that... I travel a lot in my capacity to, well, push my product but in my capacity as part of Cider Ireland both in France, 'cos I have a French connection, in Spain and indeed in the UK. In the Asturian region, while they love their high acidity ciders, are encouraging a lot of their small producers to tone that down and create more approachable ciders so they can export it outside of their area. That's the same with some French producers and those not wedded to traditional methods. And that's the same in parts of the west of England.

RB: In Spain, is that the novella style?

Interviewee_3: Well, that's one of the guises that it comes under, yeah.

RB: Ok. Within the Irish style though, if it's a craft style, if it's less tannic, less V.A - is it more of a East coast of England, culinary apple style?

Interviewee_3: With the exception of Longueville House, yes. That's a fair analysis.

Only about 20% of our volume goes out through our bitter- sweet product, but that's grown. When we started out all West Coast if you like and now, that probably makes 70% of our volume, that cider. We have our bitter-sweet Dry cider which would make about 20% and all the other specialty and seasonal cider makes up the remaining 10%. It has changed but I would say predominately, at the moment, yes - it is sort of West Coast, predominately eating apples with not-so-much bitter-sweet in it. [East Coast English cider are from culinary apples with low tannin levels. West Coast has more tannin, from more tannin apples, both culinary and classical cider apples.] For the reason that you highlighted, we can only get our hands, for the most part, on Dabinett and Michelin varieties and secondly, there is a general consumer movement of traditional cider consumers away from bitter-sweet varieties.

RB: Interesting. Do you guys produce a Tawny as well, don't you? And you flavour that with hops?

Interviewee_3: We do, yeah. The way we make it is chapatalised with bitter sweet. We leave it on its lees for about 18 months to 24 months, and just before we bottle it. We run it through the flowers of El Dorado dry hops. We don't... I call it tawny to facilitate, or the reason we called it tawny, was so that people could understand where it sat in the food chain, so to speak, how it would be consumed, in what manner and at what time. There is no distilled spirit in it, as you find in a tawny [port] for example or a sherry. It's all fermented alcohol. But yes, that has hops added to it. But I've seen many a sommelier miss the hops.

RB: Before I jump back to the question 3, one which I picked up on - you mentioned traditional or historic Irish cider - by that do you mean 17th to 18th century Cockagee or something like that?

Interviewee_3: Yes. Yes. I think stuff, cider that would have been produced and you can still find it, far too many have been ripped out unfortunately, but you can still find it. You know, massive amounts of apple trees were inside walled gardens, that would have been quite substantial in their day, behind every farm house in the country. I think there would have been... in fact, interestingly some of the reference, historical citations which we are giving around the apple brandy or whiskey, there has to be fermented apple juice and you can see quite clearly that in the southern part of the country that there was an awful amount of cider manufactured back in the 16 hundreds, 17 hundreds, 18 hundreds. But I think, by and large, that was lost with the advent of beer, unfortunately.

RB: I'm reading a bit about that around Six Mile Bridge in Clare and all that area. Moving on. What is your understanding of the public's perception as to when to enjoy cider?

Interviewee_3: When the sun comes out and it's warm, unfortunately. That's it. I attended a conference a year or so ago and the guys from Westons actually do a market data analysis on the market every year and they publish [it] on their website which is very very exhaustive. And I asked the guy who was compiling it - 'cos the challenge for us is trying to soften the cyclical nature of it a bit where we would do 70% of our revenue in three months of the year - and his response was 'why bother? Why not capitalise on the three months where people go mad and forget about the rest of the year'. I think Westons is a volume producer. They've grown drastically in the last few years. They can afford to take that sort of view. For the smaller producer, like ourselves, we need to box a little smarter and I think broaden the appeal of beverages which is why we are doing things like the Elstar. Why we are doing the apple oak wine, the Tawny and there are others that we'd like to bring to market.

And, there is a whole education point of view. Occasionally, there are times I let my mind wander and have all these romantic notions that, you know, we can develop a devotion to a particular style of cider. Be that what it may. Like the way the Asturians have for their VA and when I visited there and see what they do, it is just truly astonishing. I think, in Gijon, the annual consumption is 60 litres per head. And the way they consume it and how they consume it. I presume you're familiar with all of that. I'd like to think, one day, if we work hard enough, if we can get to a situation where people will identify the geographic provenance of a product and appreciate it for what it is, rather than 'quench my thirst on a hot sunny day'. We're a long way away from that.

RB: That's exactly where my questions were bundling towards. What is your view as to the cider market positioning relative to other drinks such as white wine and beer, different beer styles?

Interviewee_3: We're definitely put in the beer category, which is a great shame. We shouldn't be in the beer category. The industrial producers certainly should be. We have all tried and continue, and some of us have given up, we continue, but it is bankrolled by the mainstream classic ciders that we produce, to really move into the wine space and that's where we should be.

Again, this is an entirely personal theory. If you went back 300 years, or 200 years and looked at fermented apple juice and fermented grape juice, in relation to the refinement of the beverage. I'm not convinced that you'd find such a massive difference or disparity between the two. And I think somewhere along the way, probably because of the naturally high sugars and therefore greater preservation ability of wine. Wine was then developed in what it has become today. But if you walk into any really cider making environment, all of my equipment is either from Italy or France and it is modified wine making equipment. So from the point of my apples are milled forward. It is exactly the same process as making wine and that's how it should be treated - real cider and real cider in my opinion is made from fresh juice.

RB: The bit I don't get. is, during 17th to 18th century, we had a native industry of cider making, yet there was a huge importation of wine. We have old styles of cider, like Coccagee, which was described as being white wine-like and particularly Sherry-like, aged 3 to 5 years recommended before they were drunk and our cider industry of that time - just got replaced by wine, which was imported, more expensive etc.

Interviewee_3: Yeah. I guess there is a conservation element to it, purely because of the a.b.v. I'm not sure it got replaced by wine, I think it got replaced by beer. Beer, you can make, any time of year, as long as you have the raw materials. You only need to make it for the ensuing month, or two months.

If you're making cider, again like wine, you have to estimate how much you are going to need throughout the year and you have to sell it within the year before it goes ascetic - and they are all challenges which, when you have the facility of turning the tap on and using a mash - why would I bother?

RB: So it's the, and I'm going to mis-use terms here, but it is the fragility of cider by its lower a.b.v. compared to wine, which makes it more seasonal, and the ability of beer to be brewed as required, say a month in advance, non-cyclical?

Interviewee_3: Yeah, that would be my view anyway.

RB: Do you offer tours of your cidery?

Interviewee_3: Not during Covid. Yeah. We have do. We have done. We do, I don't say that we are ideally set up for it. Yeah, we have done and will continue to try and do so.

RB: And what are you trying to gain from this?

Interviewee_3: Principally, it is education really. Letting people understand what cider is 'cos most of them don't know what cider is. They refer to it being brewed, which is one of the most sacrilegious terms you could use! And, you know, they've no idea. Cider is apple and it's pears and berries and it's all of these things. It's an avenue, certainly at this stage, it is an avenue for education. Education and promotion of our brand. Further down the line, if we are successful with various other projects, we'd like to turn it into more of a revenue stream, developing profit but that is not practical at the moment.

RB: So education first and then brand awareness?

Interviewee_3: Education and brand awareness. They're the two. At the moment.

RB: The next one is a very general question and I'm very conscious of the wording on it. There has been recent legislation, the Intoxicating Liquor (Breweries and Distilleries) Act 2018. It also applies to cideries and cider fermentation, cider mills - have you availed of that new type of license to be able to sell ciders to visitors. Let's phrase this correctly. What is your view as to the industry in general: are people, other cider makers, availing of this license?

Interviewee_3: No, I don't think so. It has more restrictions but it is about the same cost as a restaurant license. And a lot of our environments are production environments, are not set up like the Jameson Distillery or anything like that, and as a result, there are a lot of health and safety elements and availability, wheelchair access and such, toilets, all that sort of stuff needs to be made available. You put all of that together, but the fact that you'll have to spend 2.5 to 3 grand to go off get a license, get a solicitor to represent you, all of that type of stuff. And by the way, you have to shut at 6pm in the evening. Unless it is one of your principle business objectives, it just doesn't cut the mustard. I know of a colleague in the micro brewery sector who said 'I'm not going to bother with this, I'm going to go directly for a restaurant license' because the overhead is the same and if I want to have some musical entertainment here, or if people want to go and book a birthday

to come and see around this and have some musical entertainment afterwards, I can't do it with that license, whereas if I go and get a restaurant license - then I would. From my perspective, it was good that they made an endeavour, but they didn't go all the way. It's the same issue, you know, you can buy/get a cider-only retailer license for 500 euro which you can do, but then you have to go out and sell it to justify that investment. And I think it is the same with the tours and acts sponsored by [Minister] Kelly that came through. It needs to be, to justify the investment, it needs to be an integral part of your business strategy. So coming back to what I was saying earlier on - whether I have the guts to do it coming out of Covid-19? My goal is potentially to turn us into more of a venue and more of a tourist attraction than we are. And I won't go to the stage of using that new licensing strategy, I would just go and see a full on/off trade license, and that would be it. I think, especially because they are going to be incredible cheap after Covid-19.

RB: Everything will be different. Moving on, the second section we have is around the potential systematic approach. What is your view on adopting a structured, a templated, approach to tasting cider, similar to that in wine and spirits?

Interviewee_3: I think it is essential. That is why I was so glad that Michelle and her team [American Cider Association] were approaching it. They're one step ahead of the AICV [European Cider and Fruit Wine Association, [_____](#)], in that regard. But I think it is definitely something to be welcomed. I think the devil is in the detail because there are so many different styles out there. And how you can do it in an objective manner that will not only give the terminology to the consumer to describe what they are drinking but also accurately reflect the different types of apples, the different types of fermentation? So, it's difficult to do it - to keep on a level playing field for all of the different ciders.

I think, it's a great idea. In principle, I think it is fantastic.

RB: Beautiful segue in to the next questions! What is your view on the attached cider tasting profile? The one I sent you last night?

Interviewee_3: I looked at that. Have you seen any of Charles McGonigle's work?

RB: I have - just from what James shared. I spoke with James a couple of days ago and he was also sharing that with me.

Interviewee_3: I'll send you that.

RB: It's, again - having spoken to Darlene [American Cider Association] and this is their approach - it's based on the WSET at a particular level [3]. I've come through that world myself so I've uplifted it and I've gone through a load of books. I'm looking in the back here at my various books and I've tried to take all of those and find the common themes and I'm very conscious of others. Every individual appears to have an individual approach and they may have the spider diagrams and 3-axis or 4-axis or you could have the flavour wheels, even from Long Ashton and the flavour wheels those guys were trying to put forward. What I'm hoping this is, is firstly 'consistency in how one approaches the tasting'. First of all, look at the structure, which is the blue page and then, within that, look at the flavours and aromas and group them in certain ways.

However, I'll stop talking so as to get your opinion.

Interviewee_3: On the form that you sent me?

RB: Yeah. And feel free to tear it apart or whatever.

Interviewee_3: No. It is such a huge subject-matter, it really is.

Hang on, I must have closed that one - let me open it again.... [Searches for and reopens document.]

RB: And after the questions, we can get into the particular words. I still have questions - such as ascetic, whether it's acidity etc. We can do that after the questions. To really get into it. First of all, I think, it's more your view as to the approach in general.

Interviewee_3: There we go, I wasn't looking in the right place. I think... I guess when I look at this, as you say, you are breaking down the constituent elements of sensory analysis, if you like. And I think that is the essential building block to achieve where I think this will serve greatest purpose - which is clearly the thinking behind the lexicon project in the American Cider Association. To give the consumer, and they're never going to go into this level of detail, but to give them a set of standard terms, which won't for example be as expansive as the ones you have in here, to describe what they are tasting.

And I think that is the biggest challenge that we face - which is taking all of those elements which you are starting to break down here, across all of the cider styles and then condensing them into 10 words, not even, 5 words for appearance, 5 words for aroma and maybe 10 words for palette and that will be about it.

But I think, on the structure side...I'm just reading these again and I'd use any... Well, I don't know. For example, 'petillant' I understand very well what it is, but does the individual we want to understand have the diction or do we need to get them to understand it? I think the structure is right. When you put your groupings there on the left hand side, what do you mean by 'other primary crops'? 'Other primary crops' which are generating these aromas?

RB: No. It's more the association with them. If, for example, we take herbal...

Interviewee_3: It's an association, not an addition.

RB: ...take mint, medicinal, eucalyptus. We both know, that comes from the tannins, the fermentation of tannins for bitter sweet, or smokey bacon...

Interviewee_3: [Speaking at same time]. These are just descriptors, not ingredients.

RB: [Continuing]...No, just descriptors. And so hence, on the right hand side, there is associations. There are some grey boxes there, where it indicates 'potentially flavoured or potentially a fruit addition'. It is not saying that it is. [Speakers are agreeing]. The only one where it is sort of definitive, you know, is the hops. Flavoured additions. Wooden barrels. Everything else is... if we go nuts and ageing - it is potential ageing, potential concentration, potential warmth.

Interviewee_3: Yeah. Yeah, I don't. I mean, I love it. Wooden barrels related. Yeah, that could be tannin related as well. You can have flavoured addition on the nuts, I see. And the fig or prune. Do you know Tom Oliver?

RB: Over in the UK. He's really into perry? The perry guy, he does amazing perries.

Interviewee_3: Yeah. He also does. He's a great guy. He also makes some outstanding ciders with bitter-sweet base, but also with other ingredients such as plum and so forth. I'm just looking at some of the dried fruit characteristics here which you would get from that, so it would be an addition as well.

I mean, that's the thing, when you're referring to cider. I agree with you. Is cider purely apples?

RB: That's one of the many key questions. Kicking for touch a little bit. The associations on the right hand side there. It's trying to acknowledge and tip the hat at what the Americans and various authors, Gabe Cooke and those, are calling Variations - some people may call styles. Tipping the hat through 'association' saying this is what it could be. However, as suggested, if you are tasting it, that is what you are tasting. Where it comes from, may be indicative of a style or classification or variation.

But it is just, going back. Away from step 4, style. It is one, the approach before tasting. Look at the structure and go through these groupings, you know, green fruit etc, etc, and try to prepare to pick them out. And if you do pick them out, mark them down, you then have a profile of the taste, two. And any ciders with the same or similar profile can form a group - step three. Where that group goes, whether it becomes a variation, a style or classification, is a further step which I'm tipping the hat at, but I'm not trying to step across to. This is an aid.

Interviewee_3: Have you spoken to Davy UpRichard?

RB: Up in Tempted? No. I'm going to reach out to him. I wanted to reach out to yourself and a couple of others first.

Interviewee_3: He, in my opinion, has the best palette of all the cider makers in Ireland. I don't tell him that too often, but he does. He has the most extraordinary good palette. So I think it might be worth you having a chat with him as well. Yeah, the AICV flavour wheel. James asked me to provide, see if I could get this off AICV[European Cider and Fruit Wine Association: [_____](#)] for you.

RB: No, I haven't seen that one. I've seen the other flavour wheels, but not that one, AICV.

Interviewee_3: I can scan and sent to you.

Yeah, I like your approach. 'Cos that is one of the biggest challenges, because you hear, for example, the Americans using descriptors and then relating them back to heritage apples or whatever, and they do all have their own terminology, and you do end up with that sort of confrontation, where they're saying 'what are you talking about? that relates to this over there.

Whereas you're talking about the characteristic, rather than the apple or the geographical location in which it's made. Then you're, you're making it a more... You're codifying and making it a more universal term to describe all the different styles rather than always bringing it back to the apple variety.

So, no. I think that is a good idea. That's one of the issues you've got. And what it will do is take away the competition, so the [A]ICV of which Cider Ireland is a member, is playing catch up - even though they are about 50 years old, and the Cider Association of America is about 8 - the AICV is playing catch up. It's playing catch up because they're not showing initiative, or they haven't up until the Cider Association of the States showed them up. And, what I mean by that is there a highly dynamic association in the States that came about - a very young, initiative business - looking to provide context for itself within the alcoholic beverages market and they've gone about trying to create that entire environment. Whereas the AICV, has been sitting on its laurels, along with C&C and Heineken and all those large cider groups that went before them, including the Germans. And they've suddenly found, holy cow, these guys are beginning to actually do stuff which is of value to the consumer and we're not influencing it.

It quite interesting to watch the politics internally, 'cos from where I am, and for my sins I have to go along to their meetings, and I think if you can provide that universally applicable terminology, it'll avoid the sort of competitive element where they're forever trying to pull one over one another. I'd, to be fair to the Americans - I don't think they are. I think they are just streets ahead. And, the AICV are, this is personal interpretations, are endeavouring to show they are active participants and willing to assist in this but, my interpretation is that actually they want to use their own resources and for this sort of project to be done as part of their own agenda and not that by the American one. But that is my own interpretation, it hasn't been said. So, I think if [we] can provide terminology which is universal - it will get around all of that. I think that is a very powerful argument, particularly if they're coherent and logical.

What I liked about McGonigle's one the year before last in the States, and he was, apart from mad like most people involved in cider, he was extremely effective in taking a lot of the characteristics which he had listed - obviously a limited amount in the hour and a half which we had with him -

and demonstrated them to us. And, it was absolutely fascinating. You know, it wasn't at all about where the apple came from or how it was made, it was 'here is the characteristic'. He was very good and I think more along those lines can only improve things.

And then, we have to be taken seriously by the sommelier and wine paternity - which is difficult because the industrial brands are not interested in this at all. They don't understand it. So, I'll give you two analogies. Heineken bought Stassen Cider. I don't know if you know JeanPaul Stassen, a Belgium cider maker. And Jean Paul is still very active with Heineken and he also sits on the board of the AICV but, you know, and he produced what you would call all-juice cider, more up-market. It wasn't a tiny business but it wasn't near Heineken scale, and they have struggled. Heineken have really struggled to fit that type of product profile into their commercial strategy and make a success of it. I know their first attempt - horns in and pulled back - and decided 'how are we going to attach this beast again?'. And you know, it's a mentality, it's a culture issue for example. If we look at, I would have a lot of dealings with French co-operatives. The two principle ones are Agrial, which is Ecalon [?] basically and Lesselier Associate [?] and you try to talk to them about, cos I'd have worked with them about some of our cider business in France, to talk to them about low-volume, high-margin and they just can't get it. They don't get it, they just can't get it.

RB: Does anywhere get it?

Interviewee_3: In the case of the French, that is largely 'cos they are subsidiaries of cooperatives. And cooperatives have loads of farmers producing loads of apples, which have got to be sold. So, you can kind of understand that. But I think that it is also a corporate mentality. 'This is what we do'. You know, as well as I do, that any large organisation that is set up to operate in a certain manner. It's very difficult to change that. But then for example you look at, for example. the Ackamen group [?], they make a lot of wine. I visited one of their sites in the Loire Valley. All indoors, this thing was something, like, between 40 and 50 hectares inside. It was set up to produce vast quantities of vin mousseux, cremant, method traditionnelle. And, they had these warehouses within that facility, acres of thick concrete so that the temperature would stay the same, to be filled with bottles which would be aged before they would be disgorged and the champagne cork put on. And all they were trying to do, despite all that facility, was run smaller volumes at higher margin. So, in fact, the location was only being used at 30% capacity. And that is something that the big

industrial cider producers haven't cracked onto. Whatever they might say. Having listened to the guy who took on the cider brief in Heineken, and they see it as, in fact, identify it. For example, they said, if we don't push for cider alongside the beer, the ladies might say we'll have wine and then the men go onto the wine and then we lose all of the sales. So again, it's always cider is secondary, especially to the big brewers. When we signed a big contract in France, with a subsidiary of Kronenberg, to do the distribution, we were just... They imported specialised beers. The one thing they didn't have was a cider. Great, come in, you're just here to complete the portfolio. Yeah, we've got everything from a cider through to a stout. Whatever. And, actually, they struck a very bad deal for them and a very good deal for us - 'cos they didn't think they'd sell any volume, but it actually became the differentiation for all of their distributors and sales staff when it came to putting cider into English, Irish pubs in mainland France.

So, cider is always a secondary thing within beer groups and the majority of the cider makers. Certainly, the vast majority of cider makers within Europe, which is the lions share of the market, are brewers.

RB: Ok. Interesting. Running through the next question. With the template, would you consider using it, bring tourist/visitor during a tour of your cider?

Interviewee_3: Yes. Like that? Definitely, definitely.

I'm not very good at verbalising what I taste and that is why I'm recommending Davy, 'cos Davy is exceptionally good at picking out flavours and verbalising them, which, if you watch any good sommelier or wine expert, they have their finger on all the pulses in that regard. I would definitely use it. Absolutely, absolutely. If it's at the right level for the people walking in the door? Yes. You might even have two versions.

RB: How would it benefit the person walking through the door?

Interviewee_3: I think it would probably increase their understanding of what they are consuming obviously but also increase the credibility of real cider as a beverage. So, you know, it's not just sweet or dry. There's a whole load of descriptors involved. "Oogh, it's a bit like wine". If you go to CiderCon and you see the Americans taste it, that is the approach they take. It is very refreshing.

RB: What are the industry barriers, whether real or perceived to adopting such an approach, something like this?

Interviewee_3: The brewers won't want it... I mean this is the biggest problem we have with all of these things. And that is the biggest problem and that is what is motivating the actions or thoughts behind the actions, which are motivating the AIVC, which I mentioned to you.

We are little piddlers and as with many trade associations, just like IBEC in Ireland, they want the small producers to improve their legitimacy when it comes to speaking to legislative bodies... They really don't give a [expletive] and aren't interested in the slightest. But we are good window dressing.

And ... the reason being, therein lies a massive conflict and it's the same at the European level.

If you introduce this, the consumers - the concern, I think, would be that the consumers see that the Emperor is not wearing any clothes.

RB: Who's the Emperor? The industrial guys? And then the brewers as well?

Interviewee_3: Yeah. By definition they own them. The vast majority of them are brewers, Orchard Thieves, Apple Fox is Heineken. C&C is run operationally out of Tennents in Ireland. It's made like beer.

The tide is going to go out with your [*waves template systematic approach*], with those descriptors and they're going to go 'hang on a sec'! They all taste the same.

RB: But that would expose the quality of craft cider?

Interviewee_3: Absolutely. But, you asked me what the barriers would be. They'd be the barriers.

It's the same thing with 'why are we the only food category' - it's changing but crikey, they're hanging on - 'why are we the only food category that doesn't have to put our ingredients list on the product?'. If people knew what went in. If you're fortunate enough to get a bottle of Savannah from South Africa, and, they're obliged to put the full ingredients list on it. It's not a very pleasant read, you know, as to what you're consuming. And I think that's what they're concerned about.

Indeed, the big guys are getting ready for that in Europe and so, the likes of Kronenbourg with SummersBee [?]. Heineken are endeavouring to do the same. They're endeavouring to swap various ingredients, currently in their cider, out with new things that will either sound more innocuous or do not have an 'E' in front of them. That would be the barrier.

Calories, for example. They're being tough on that one but they're being forced to do it. There was a big move by the NACM, that's the UK Cider Makers Associate for the industrial cider-makers, to legalise the use of stevia in cider because it wasn't legal to put it in cider. And there has been massive amounts of investment, nominally for the industry, but really for the big producers to lobby the EU to allow it to be added as a sweetener.

RB: What do you think the benefit of using such [a templated systematic approach], would be for the individual cidery? During a tour of using one of these? Brand awareness?

Interviewee_3: In some senses it might give more confidence to cider makers to push the envelope to make more esoteric ciders. I think. Not overnight. But if they can begin to educate consumers and consumers become more interested in more esoteric things. Then, I could see it enabling them to do that. I'll give you another example. You may know Aidan of Galway Hooker, up in Galway? Aidan was one of the first micro-brewers back in the late 90's and I remember him telling me a story. 'You know, it's weird. One of my first customers rang me up and said - this was after the rest of the micro-brewers had got going - and rang me up and said 'Aidan, can you know make your beer more a little funkier, a little more interesting' and Aidan responded - 'it's not two years ago when you wouldn't take it on cos it was too bitter, had too much character and all of that type of thing''. So, it might give people the confidence to push the boat a little further if they can point to that. I think, it adds to the legitimacy of the product that you are pushing out. You are not just selling a sweet apple-y drink.

RB: Would you consider using a wallet-sized tasting template?

Interviewee_3: Yeah. I read that. Yeah. Absolutely, of course. So, we produce... Absolutely, I would. We produce something, not along the taste profile but something we distribute to the industry en masse every year which is basically what I call a 'cheat sheet'. It's a business card size

thing, laminated to survive a week or two. Survive at least one wash, and it's basically: what are all of the USPs? Why are you serving this cider which is more expensive than Bulmers? And what ever. And obviously, there are some of the ingredient elements associated with that but we don't go through any of the characteristics of the beverage.

I would absolutely use that - absolutely. We do it to promote the product already and I would do it again. Because at the end of the day, the people who sell our product are the people who are serving customers.

RB: How would you think it would enhance the visitors experience? The cider mill tourist, the person doing the tour. What would they get out of it?

Interviewee_3: Well. Beyond what we discussed before, I hope they'd have a very positive experience - they'd get a buzz out of it ... I mean, you know, they're going to be educated, they're going to learn more about the product, hopefully they're going to learn more about the sector. Hopefully they're going to walk away with a feeling of something accomplished.

RB: Could you see them, at the end of a tour, actually discussing amongst themselves? Trying to go 'I get X' and 'I get Y'. Would it be a social engagement between them?

Interviewee_3: Yes, it would. Absolutely. I mean we get that now without this, so obviously there would be a number of descriptors which I would use, depending what product we have - may 8 or 9 different [ciders] - and I will select, and depending on a couple of the base ciders which I have in tank here, they'd have different characteristics like pineapple and so forth. I'd explain where that flavour comes from and how it comes about within the cider. We do a rhubarb wine to go into our rhubarb and apple wine and it really, the base rhubarb wine, it can be sometimes exceptionally salty - it really is salty. So once you've given them those, it really blows them away. 'Jeeezzzz, what's this flavour?'. You know? So, you will hear them discussing it and disagreeing saying 'I don't get that at all'.

Absolutely, we get that on a smaller scale without all of the descriptors that are included in what you are referring about. So, I can only imagine, as long as it's not too much. You know, the society

within which we live. ‘Oh, shit there is more than 20 words there, I’m not going to be able to read this’. So, as long as it is accessible. Yes, absolutely.

RB: The last question and I ask this of everyone. Could you see cider mill tours, and providing knowledge, through something like this, being used to grow a visitor, who’s a visitor who’s had a great time, into a cider advocate?

EM: ... if that wasn’t the objective, the ultimate objective, then I wouldn’t have thought the rest is worth while. Absolutely. That is a.... if that doesn’t happen, then you’ve failed somewhere along the line. Somewhere along the line you’ve failed. But, yes. Absolutely, that’s the goal.

My hope, (that was the bank calling me), I’m going to get a some of cash, and put together a big visitor centre. Big in relative terms. And, one of the objectives is do just what you were talking about. I mean, I hadn’t gone into the detail of the descriptors and all of sort of thing but bring people in, educate them, get them to understand what real cider is all about and contextualise what they’ve know before and hopefully walk away and get them to look at cider in a different way. I had this crazy experience. A Masters student from the States, from Minnesota, rang me and said ‘I love your cider. I’ve been here during the lockdown. I’m going back to the States’. And just her view, coming from the states and all the different ciders and esoteric ciders, she had gone through the entire cider offerings which Ireland had to offer and more. And I would say, that was because she was a cider advocate and she was absolutely buzzed and she knew cider, she liked cider. She may not like this or that cider, but she’ll try it. And she’ll have a view on it.

That’s where you want to get to. You want to get somebody, without becoming pompous, ‘cos I don’t enjoy pompous wine drinkers, for example, but [describing] whether you appreciate it or not and why you appreciate it and feeling comfortable expressing that ultimately being able to point out there is a lot more to cider than most people think.

RB: Absolutely.

[This part of the interview finishes and recording stops for a few minutes. A fresh recording starts a while later, with an examination of the template provided.]

Interviewee_3: ... when it comes to distilling it down to something that people can use. Green fruit. Stone fruit etc.

RB: ... and because there are so many styles. It's very difficult to put it onto one piece of paper with out it being ...

Interviewee_3: Yeah. So you're really not making any reference to the fruit of origin - are you?

RB: Deliberately, not.

Interviewee_3: [30 seconds of silence.] Yeah. 'Cos some of those woody characteristics. Have you got 'smokey' in there? Yeah. Yes, you have. Any particular reason: 'barrel related -that's purely for description purposes? Correct?

RB: Yeah. Absolutely.

Interviewee_3: Yeah. Other than the lower line, the upper ones [different descriptors within the template] - a lot of that can be drawn from your tannins. But I understand you're not trying to. You're specifically avoiding the reference to them.

RB: And I didn't want to. There's a group above it which is related to fermentation and I was just trying to bring the barrels into it. A little bit on it's own. I didn't want to merge fermentation-related, 'cos then I'd end up merging it with everything underneath.

Interviewee_3: Yeah. As I say 'that's where you make the cut'.

RB: One could repeat it. One could add it into fermentation just there.

Interviewee_3: No. One would create confusion.

Yeah. It's good. And so. OK. You're describing a cider to me. How would you use the groups? Are you suggesting, for example so I understand, that when I've gone through my... Looking at the structure of the beverage and am tasting it on the palette and want to describe the sensations - are you suggesting that they go through, in order, the primary fruit first and primary crops secondary and so forth as they do it?

RB: Taking a step back. If it's the tasting of the palette - go through the sweetness, acidity, tannin and all of that type of stuff. It's sweetness, acidity, tannin, alcohol level, body, and then, it's the characteristic. We'll get flavour intensity, other characteristics, and then length from page one. But where it says characteristics, 'see aromas and flavours', then I'd sort-of pop over to the green one [*second page*] and go - 'What am I getting? Am I getting green fruit? Or, am I getting more tropical

fruit? Am I getting something which is ‘barrel related’? Wood? Or, am I getting [something else]. For me vanilla is oak in my world. I know that doesn’t have to be. But just picking out the wood, smoke, toast. If I was tasting a wine, I’d start and approach the wine: am I getting primary fruit? Have I got secondary? Have I got tertiary? And [if] I’ve got something which is secondary, I’d be going, ‘right, is it wood wood related? Do I have wood, toast, vanilla, cinnamon? Potentially cloves? And, I know that wood and toast can appear in several places. A Syrah, by the nature of the grape without any wood or wooden fermentation, may have cinnamon, spice and black pepper and that type of thing on it.

But, it is just a suggestion for the person going through it, to go ‘what do I think I’m getting?’. [And] suggesting the groupings to think about. ‘There’s something floral on this. It’s primary, it’s fresh, white flowers. What am I getting? Am I getting acacia? Am I getting elderflower? Anything like that? Or is it more sort of red flowers? Is it violet, roses or such? Think of the groupings and pick out some of the flavours within that. If I get green fruit, then maybe pick out some of the suggestions there. The cluster - in effect. It’s all about the clustering. And then, you want to move onto the next cluster, if there is one. So, you could get green fruit, stone fruit... If you watch sommeliers when tasting, they’ll go: I’m getting stone fruit and within a second, they may have mentioned peach, apricot, nectarine... cos that’s the cluster - that’s already in their mind. And it’s thinking about the clusters which helps one to go through them. But if you have that systematic way to approach then to go ‘what is the acidity, sweetness etc etc’. You know when, whether on the nose or palette, now I’m looking for flavours. Have I got green fruit? No. Have I got citrus fruit? Yes. I’ve got one, two, three. Have I got tropical? Yes. I’ve got one, two, three. Now I’m moving on. Have I got floral? No. I’m moving on. And it’s that ability to go through, scan through and think about clusters.

Interviewee_3: Yeah. I think you’re absolutely right.

I think the only challenge, I think you might potentially have, is ... I’m just thinking through of an application, within a cidery... I’m trying to remember, trying to remember... Have you ever heard of The Northman?

RB: The bar / cidery in Chicago?

Interviewee_3: Yeah. One of the most amazing cider bars I have ever been to. When you're talking about, what you're talking about there, what made me think of The Northman was: you go in, it's truly astonishing, you're in the middle of Chicago and they have just about every cider style in the world that you can find. It is extraordinary. What I'm saying is, after the McGonigle talk, I went up there for Gabe Cook's book signing. And what's astonishing is that having had all of those descriptors and so forth, is that, I was then in a position to taste some which they made reference to, when we were tasting certain characteristics. Or, alternatively, have such a broad selection that I could then actually use that new-found knowledge and say 'Yeah. I get it. Yeah. get it. Spotted that one. Spotted that one'. And I mean, it's fantastic.

But my worry, at the current moment, is that there wouldn't be enough diversity within each cidery to justify, fully benefit from the clusters and descriptors which you are providing. That doesn't mean we shouldn't do it. But I can see it. It's going to be one of the challenges. We, as a sector, if this comes about, would have to be more adventurous and goes back to what I was saying earlier . Perhaps it will make us slightly more courageous in pursuing different styles because we will need to be able to demonstrate to a consumer, should they come in and go on a tour, that we were talking about this flavour over here - lets go try that cider over there. So they can actually identify it. Because if you only give them, well, I'm giving you that silo and it falls into those. You really want to be able to say 'let's start over here and, oh, oh, let's go over here and try some up through the middle'. You'll begin to get your idea.

RB: And that's where chatting to [interviewee_1], one of the ideas which came out was... I believe a couple of years ago, with Bord Fáilte, there was a passport to record cidery visits and get a stamp at each? You could extend that to not just say 'I was here' but, if you actually had your wallet-sized template, and then you'd go through the tasting and be able to see the difference styles between the different Irish styles. Lets say between [mentions number of the craft producers and their ciders]. You guys also do an Ice Cider, don't you ?

Interviewee_3: Yeah.

RB: So, could you imagine one of those extended out to include the tasting so suddenly as a visitor you're creating your own profile and then comparing them.

Interviewee_3: Yeah, this [shows card describing own ciders] was an un-original idea which came to me from Little Apple Cidery, after I met him in Chicago. And this is just for his upstate New York area. They're fortunate in that they have beer, wine, cider. By the same token, in speaking with, we took this up with Jonathan McDaid in IBEC and he was going to try do it and I think at the moment there is a reluctance to do it. I mean, I have started communicating with Could you do that cross-category? I've started, because it seems... Yes, it could work in answer to your question. Yes, it could work. I have started to. Well. I'm well on the way with Fáilte Ireland and one of the Senators down here, just for Cork, 'cos there doesn't seem to be the will to do it on a national level. From a cider perspective, you have myself, you have Longueville, that's about it, and about 5 or 6 micro-brewers, a handful of distilleries. You're going to have a passport that's going to have 20, maybe 30 Well at least 20, maybe 25 beverage makers. Alcoholic beverage manufacturers which people can visit. Kinsale Meade and so on and so forth.

But yeah, I think it is a great idea. I don't know, 'cos they did the whiskey trail, which I'm sure you're familiar with, and I don't know if it is the Covid-thing and they're all focused on trying to help businesses stay alive or what. But the creation of a trail for cider, alongside the whiskey trail, we pushed it. Cider, beer and whiskey. At the moment, I don't think it is going anywhere which is why I'm trying to push things on with Cork.

But yeah, absolutely, absolutely. I think it's a very valid idea if we get behind it. Let's look at it. 18 manufactures in Cork. I'm sure you're familiar with what it is like herding fish!

RB: Yeah... and cats!

Interviewee_3: The one big difference - Fáilte Ireland keep going on about 'coopetition'. I don't think it is coopetition 'cos actually you're selling a total proposition. You're not selling Kinsale Mead or Stonewell Cider or Longueville. You're selling the country as a destination and one for education. So, I think there will be a lot less angst about this. Certainly, in Cork, than a lot of the other, say, Bord Bia exercises which do depend upon coopetition, which doesn't always work.

RB: Yeah. Interesting.

Interviewee_3: But yeah, listen. I think overall, I think it's a ... If we could get to something, if you could achieve what you're going to achieve, what you're aiming to achieve, I think it's going to be invaluable. Invaluable. Then it is up to us to adopt it. I think one of the other biggest challenges we have is, to be perfectly honest with you, which is the ... A lot of, unlike the beer makers, a lot of the cider makers are either apple farmers or hobbyists. So, they have something into which they can retreat or it doesn't matter to them if it doesn't work. Now that could work to your advantage and disadvantage. To your advantage is that as they don't have any real skin in the game, there is no risk to them to apply some of the things we were talking about to demonstrate it. But by the same token, at the end of the day, will some of them make the effort? I really... They make most of their money out of tinned fruit. Without wishing to be too negative, you need to be realistic. And if you look at it. There is going to be consolidation out of the whole Covid-19 thing. So what may be, across the island, there might be 18 makers at the moment, I would say there are possibly 5, 4 who depend upon it for their living and the rest either have it as an addition or it is not their principle activity. So, as a result of that, I think we will see some [changes]. Out of the 18, I suspect we'll come down to about 14. That doesn't mean we shouldn't do something like this, by any stretch of the imagination.

RB: I'm, obviously, going to try and reach out to lots of the other cider makers. I've already spoken to a couple as you know.

[Discussion about providing introductions to other cider makers. Interview brought to a close.]

Interview Four

Date: Monday 12th October 2020.

Online, Zoom.

RB: [Introduction, including confirmation of recording.]

Interviewee_4: Yeah, you work away. Thats fine.

RB: And the first question there is a very general one. What is your understanding of the public's knowledge of the different styles of cider? By that I mean, Spanish Asturian, French, or the West county English type of style.

Interviewee_4: My first reaction to that was - if you asked someone in Ireland that you would get an entirely different reaction than you would over in England. England has got slightly more understanding of cider over in the mainland. In Ireland, we have. We've never had access to what I would call proper cider which is full of juice, lots of natures characteristics about it. We've just had a generic Magners or Strongbow or something like that. So, my reaction to that is if you asked somebody over in Ireland, they wouldn't necessarily say French West Country English they would just say dry, medium or sweet. Yeah. Yeah. So, that's my first reaction. If you went up to 10 people in a pub and asked them 'what's what's a West Country cider?' They literally would look at you as though you had two heads.

RB: Yeah. So, it's very much based on, I suppose, that Bulmers' concept of the level of sweetness is the only thing which people see?

Interviewee_4: It's the only thing which is being offered. Because they haven't been offered level of sweetness with a higher level of tannin or higher level of acidity. They've just literally one offering. That's it.

I can harp back to the days when you would have had Strongbow cider in the North. By going back, I'm talking about going back to the late 70s, 80s where Strongbow was probably seen as a proper cider. Draft Strongbow was seen as a proper cider and your Cidona-base [Cidona is a non-alcoholic Irish fizzy drink], Cidona-type ciders, that I would class as Magners, was the other alternative. Strongbow was the proper cider and Magners was Irish cider. But Strongbow in those days had much more West Coast characteristics. As soon as the accountants got hold of the recipe: gloop-syrup became a massive thing in it.

RB: Yeah. Yeah. Unfortunately. Which is a nice segue into, I suppose, the question of - is there an Irish style of cider?

Interviewee_4: I think there is very much an Irish style of cider. You know. Which is... You know, Daniel and I were the first ones to go to Blas [na h'Eireann]. There wasn't a massive difference in our ciders in those days. Not a massive dichotomy... over the past few years, with an average Irish cider which is essentially lower tannin, higher juice content. And very much so. A higher juice content to finish the cider off. You know? You know, you have your cider [which] isbase cider is made from juice, and then whenever it was finished off, with a lot of apple juice. So, it is... it has a very distinctive characteristics.

RB: Sort-of like a back sweetening process characteristic ?

Interviewee_4: Yeah. Even the ciders I would consider to be of lesser quality from craft community, they still have an Irish style to them.

RB: And is that mainly, let's say, based on culinary, dessert apples driving that sweetness?

Interviewee_4: Yes. I would say so. You have your base cider which has whatever level of tannin in it. There tends to be juice used in the back sweetening process. So, yeah. I was talking to another cider-maker the other night. About three years ago, I stopped using fresh juice as a back sweetener and started, after research, using an apple juice concentrate, that I liked. And I re-constituted to more than they would recommend as a back-sweetener because I was finding that, if I was getting apples out of cold storage, or out of out-grades in June July, I was finding a musty type thing. So I went to an apple juice concentrate, but all my base cider is from pure juice hundred percent pure juice.

RB: Okay. So, there's... But there's no real focus, generally in Ireland, I'd say, on Dabinett or Kingston Black? You know, those traditional real tannic apples, or anything which is Asturian? A sort-of, like, heavy in VA ?

Interviewee_4: There's [a lack?] of Kingston Blacks. There is probably fewer than 100 Kingston black trees in Ireland. There may be some more now 'cos some smaller growers have specifically grown them. Dabinett, Michelin, give you a, shall we say, an average of amount of tannin and aroma. Things like Kingston Black, Yarlinton Mill, give you lots more tannin than Foxwhelp and such, will give you a lot more acidity. Lets face it, we have no problem to get acidity here in Ireland because we've got Bramley's coming out your ears.

[Discussion of apple varieties.]

I wonder how anyone, except absolute advocate of the variety, would drink them? Because they bring in extreme version of one particular style of cider. My whole thought around cider - make it smooth, make it easy to drink. I'm really trying to bring the masses into my cider rather than the guy, you know, the hair shirt brigade who want the tannin to strip their teeth, acidity to take the lining off their gullet. I'm looking for something smooth to bring people in. Don't make it too difficult to drink but give them a good flavour experience.

RB: Ok. Because we're now mentioning the public and the wider public. What's your understanding of the public's perception of when to enjoy cider?

Interviewee_4: The public don't have a perception, I don't think, of either style or when to drink. If you talk to the majority of people who say 'I like a pint of cider and a nice warm summer's day'. No. It's not, it's not even 'I love a pint of cider with a warm summer's day on a barbecue in the evening'. It seems to be 'the suns out, we'll get the cider out, a wee bit of fruit, easy drinking'. The majority of people doing that want, literally, something that passes down the back of their throat, without even thinking about it.

RB: Yeah. Yeah. Agreed. What is your view is to ciders positioning in the market, relative to other drinks, such as white wine or different beer styles?

Interviewee_4: Again, if you're... I had a local beer company who make lots of IPAs. They planted a small cider orchard of Dabinett and wanted some cider from those apples. They walked in with a description saying to me that they wanted an IPA cider. You know, by that, sort-of more intense flavours, more, much more complexity. So I made the, 70%, 60 to 70%, better-sweet cider, where I added Ashton Bitters as well. You've got loads of tannin, loads of flavour, kind of a smoky undertone. So, that hit every IPA style. So, I sent a couple of bottles down to Daniel, and he said yeah, he really likes it. He would drink a lot of it, but he didn't think it would sell over in England. It wouldn't be a particularly commercial cider in Ireland. If you had a following as a beer company, there may be a following of people who might try it. Therefore, we could possibly try to get it into the public consciousness, but it's not the general public. It is people who are looking for that flavour experience.

RB: Yeah. The hipsters.

Interviewee_4: Hipsters or people, the more... there's a lot of there's a lot of... I think ... a lot of, I think, older... In general, as you get older, you're looking for something that gives you a bit more value for money in your flavour. But the hipster I would take.

RB: What about positioning to white wine ?

Interviewee_4: I think there is definitely a way to market cider, that it has the the attributes of a white wine with half the alcohol to it. Someone who's looking for... someone who's looking for a beverage with a meal. That's not, you know, that's inoffensive but has a bit of flavour to it. There's a lot of... I think Daniel's dry cider and I think my dry cider... My dry cider has been compared to Sauvignon Blanc. It has that sort of lightness to it. [A] decent amount of flavour going in the background. That's 5.7%. So, there is a way to market that as a sort of slightly, shall we say, healthier option.

RB: So, from what I've heard is - the more intense flavour is more towards the IPA beer side, whereas a lighter flavoursome, but not overbearing type of Pinot Grigio, Sauvignon Blanc, on the wine side. So it's... You see it as a flavour intensity side?

Interviewee_4: Exactly, And, and that's, I think, you know... Whenever I'm speaking, 9 times out of 10, it's about my cider - dry, medium and sweet. It's back to the start - style of cider. So my

dry is 5.7 %, it's about a 30% bitter-sweet. It's easily, easily drunk with food, but got a load of flavours. Not overly sweet. That's a proper dry, about 1006-1007 [reference to gravity scale of sweetness]. My Medium-Sweet is mid-scale of a Medium, about 40% bitter-sweet. It was my Normandy style for use of a better word. My Sweet cider is about 20% bitter-sweet about 1015-1016 [gravity]. So, it's considerable less sweet than the mainstream stuff. My elderflower, my strawberry [is] 1018 [gravity]. They're sweeter. Sweeter. The elderflower has about 10% Michelin put into it, for the aromatics quality. Strawberry cider has no bitter-sweet in it at all. It's very, to me, it's very important that I've got my clear flavours, recognisable from one year to the next. So, I'm not looking for the single variety, wild ferment which is going to give you something beautiful this year and interesting next year.

RB: So, you're looking for an... I'm gonna repeat back what I think I've heard. You're looking for really consistency, which is commercially viable. You are looking for your ciders to stand on their own. And, as opposed as the first position, as opposed to competing against an IPA, or competing against a white wine. It's the flavour profile of the cider itself, standing on its own.

Interviewee_4: Yeah. I think, your cider has to stand on its own, in a sensible way. We should be able adapt people's perception to it and then then enjoy it with food.

RB: Yeah. And that was actually... I suppose the core to the previous question was, where I was really going, is trying to understand do the public see cider [as] something to enjoy with food, as opposed to, it's a summer drink. It's that concept of food.

Interviewee_4: Out of context this would sound really stupid but, you know, the public are really stupid. The public haven't got a clue why we drink what we drink. They have no concept that certain drinks go with certain things. No concept. I'm probably the epitome of that. I like Sauvignon Blanc and will happily drink it until it is dead. I'll also quite happily drink a good robust red. Given the choice, I like something light, because I'd to be able to enjoy the flavours of the food. If I have a stake, I don't want the tannin of the red overpowering the flavours. 99.9% of people do not have a clue as to why they drink anything. Therein lies the problem to a certain extent.

RB: I agree. And moving down the list of questions here because this will bring us in towards the template. Do you offer any tours of your cidery?

Interviewee_4: No. I'm based on a farm in [mentions county], where the press is, where the apple intake is. That shed. We are literally just putting in flotation systems there. We're not, I'm not setup for it at all. When all you can do is. [Interviewee shrugs]. You can't sell products. That would be a very good way to tie up either money or time.

RB: Looking at the approach to tasting. What is your view on adopting a structured, a.k.a. templated approach to tasting ciders similar to the template I sent through?

UV: I think from the point of view of 99% of the public, it is useful to make yourself appear like you've got a very complex product or a very quality product. I think, it's much more useful for a professional. Professionals, to talk amongst themselves. So, you have a much more... a much more concrete idea of what someone's cider is actually like. I have to say, I've often heard cider-makers describe their own product and when you drink it, it is like like, chalk and cheese, it is nothing like it. You can... You can... People can get a real a real blind spot of, like, their own products that make everything is wonderful. I am course of totally different... [laughter]. I've poured stuff into the septic tank here in the early days because it just wasn't merchantisable [merchantable]. It was not an acceptable quality. You have to have standards. It depends on [what] your level of acceptable quality is. If you've made 50,000 litres of very, very poor cider, someone is going to have to get rid of it. By telling people that is wonderful, it's amazing how much of that you can sell. And again, therein lies a problem for a craft point of view. Someone heighten the product. That sounds wonderful and obviously it's not. But from a professional point of view, I think a flavour wheel, the descriptors ... I think one thing that was... One thing that you need alongside a flavour list is an actual test profile, as well, as something that you could put a drop of a concentrate on a bit of cotton wool and waft it in the air and actually get flavour.

RB: Is that a... within, even the craft industry, is that based on the level of knowledge for the cider makers themselves as to be able to pick out asay, you know [Interviewer displays a little

aroma sample bottle]... I've an essential oil of sandalwood here, or Eucalyptus, etc. Is it that some cider-makers have difficulties picking out the actual existence of a flavour ?

Interviewee_4: The majority of... The majority of cider makers in Ireland, haven't got a clue. Nobody's got any history on the product really. Nobody's got real in-depth knowledge passed down over the years. People, over the years, [have] gone and done Peter Mitchells course, or whatever. I'm one of the few people that [didn't] attend over... hasn't done anything at all. I, you know... I come at this from this from our winemaking process. My dad and I used to make wine and beer. We made lovely wine. We made appalling beer. So, you know, I certainly can recognise things whenever they're not good. There's nothing over here where people sit down and smell something, whether it's esoteric content or something similar. There's no real level of perception at all.

RB: So, if we step back, there's a question. Not even a question. The fact. The fact of the immaturity of the marketplace and the public's understanding and perception of cider within Ireland.

Interviewee_4: Yeah.

RB: And then, within the cider makers, for the cider makers themselves as producers, the maturity of the producing industry is quite low?

Interviewee_4: I think that is an un-disputable fact. The longest... The longest that any of the cider makers in Ireland have been producing cider would be 12 years. You can dismiss quite a few of those already early years as trial and error. I had a plant nursery for 25 years and I always said if I was introducing new products, a new type of geranium... But taking five years to work on how to grow that properly, for different environmental conditions for one year to the other... No, so. It's time. It's time to understand. People are only now getting to grips with how the seasons and that lack of... Most people that make cider in Ireland [make it] with good production values. There's no, you know, 'we've been doing it this way for fifty years' and every one of those years, you've had an esoteric content. So that's just started starting to get to grips with how you can influence the flavour of your production, you know, in better ways.

RB: Would you like to step through this? And get your view on it? And then we'll continue on with the other questions.

Interviewee_4: Yeah. This comes back to, you know, what I said about nearness. You need an accompanying flavour for each of your descriptors. People really need to actually understand what that is. It's very easy to say there's gooseberry if people actually know what gooseberry is like... Do people actually know what quince tastes like or smells like ? What's the difference between a mandarin and tangerine? That's quite... I think you need to have specifics to work to. For people to have a set of parameters to know what they're talking about.

RB: Yeah. Okay. As a matter of interest, have you heard of ... The French have a thing in wine... I come from a wine background and I have the WSET Diploma. And, as part of that, I would have worked through these approaches. But there's a thing which the French sell called, it's like the nose of wine, it's a 'nez-du-vin'. And there's about 100 and 20, in the box. There's 120 essential oils, each of which is assigned [a scent].

Interviewee_4: I think that... from the point of someone who was trying to understand their product, a set of that would be invaluable. Because it's very easy to.... You taste the cider, from my point of view, it might trigger a memory of some flavour that I had once a time. It mightn't come to hand quickly.

People need to educate themselves on flavours and aromas, before you can absolutely understand them. You need to understand each one separately before the interaction between. Yeah.

RB: And taking a step back onto the first page, is the structure. The blue page where it's sort of broken down into the appearance. Clarity, intensity, colour, other than the aroma. The intensity. It mentions the characteristics of the aroma and flavour which jumps to the green page. But then within the palette itself. You know, the four sweetness levels. I understand that here, it is based on what the Americans, the American Cider Association, the four levels of sweetness which they're working off. So I understand that we use different ones here. The acidity, the tannin, the alcohol, the body, and all the way down to the flavour intensity. The length, complexity and then actually coming up with a conclusion at the end.

What is your view on that structure before we jump into the flavours and the aromas? Because what I'm raising is a consistent approach, by which not only hopefully the public but by producers,

to 'what is in the glass?'. Before I taste, how am I going to approach it? I'm going to do it the same way. every time. I'm going to be systematic

Interviewee_4: If you are trying to compare and contrast, that's absolutely essential. I still think, it is very difficult to take, personal preferences and set them to the side. If you like something that is dry, with very little sweetness and someone hands you something that is sweet. That's the first thing that.... Unless you really trained yourself to do a structured approach, it's very hard to put put them, personal preferences, to set them to the side. Does that make sense?

RB: It does. To how people will naturally react 'cos we will all go for a preference.

Interviewee_4: But from a professional point of view, the more structured the approach, you should be able to put that into the background. At the minute, there is no... me telling you this, is like someone telling me I'm getting older: it's very obvious. To try and put some standard stamp on all of these things, it's very important. The timing of this is probably right now 'cos there is enough expertise and experience to understand this further, whereas there won't necessarily have been five years ago. Yeah. Yeah. So, a specific structured approach, this is where we are going to sit down and quantify and qualified what's actually in our glass. I think a structured approach like this is essentially the only way to go. How many people are you going to meet, who have such a natural talent, who can just taste this without going through different things like structure?

RB: It may be down to training and education for the producers themselves.

Interviewee_4: Yeah. If producers don't have an understanding it's... it's very difficult for them to convey that to the public. This is very important because this is initially seen as quite a complex thing for the producers to understand and then you need something that is slightly more, slightly more streamlined for the average punter.

RB: Jumping right back to the preference bit and the reason within the conclusion, you'll see that there's sort of two pieces of it. Before giving a quality assessment, it is a case of going, you know, this is balanced. You know, it's a balanced cider between the acid and the tannin or alcohol etc. And then, it's also the other assessments of things like the length - is it short or long? Or is it, you know, is it complex? What's the intensity? It's those qualities rather than the preference which

one naturally has towards sweetness. It is trying to control that by drawing qualities out. Something's not, you know, brilliant because it's got loads of sugar in it. What are the other reasons? And, it's trying to draw that...

Interviewee_4: That's important right now. It's important to me, very important, that my ciders are balanced. A word that has been used to describe my product over the years is smooth and that's what I'm trying to get. I'm trying to get something smooth and consistent. Whereas someone, like Tom Oliver over in England, is trying to get maybe more of a shock value on certain things and he wants to highlight a vintage style cider, where you have massive differences in flavour profile from one year to the other. So, how much that influences the producer depends on what their ethos is.

RB: In my mind, I see a number of steps around this. There's... In my mind, I see a number of steps around this around the whole area. I'm extremely conscious of not just classification, but before that, you know, using the word style. I can understand that style is very sensitive to people, especially since it's such a competitive market, and therefore, being acknowledged as having a style, you know, a particular style or not, is important.

What I see here though is the liquid in the glass. Before tasting it, if everybody agrees heres how we're going to taste, you know, we're gonna, you know, or examine it - it's going to be the same systematic approach. If you then fill in and mark down for each of these categories on the structure, and then pick out the various aromas which you encounter... that gives the liquid in that glass a profile. It's the result of the systematic [approach]. Now, if you then taste or approach 20 ciders - you have 20 profiles. Those which have a very similar profile can be grouped together, which is sort of like the third step. And that's I suppose the first three steps, of maybe four or five steps. Fourth [step] perhaps is, for the ciders in the group, is coming up with a lexicon or a word for what that style is. Now, the fifth step could be, you know, classification with sort-of rules of production and such. You know, sort of like the AOC type of concept, and where things could be style-inspired, if they don't comply with those production rules. But if I go back to step three. And if we look at the aromas and flavours on the green page - what I'm trying to acknowledge here is a couple of things. On the right hand side for the 'associations', is acknowledge the, if you group ciders

together which have a similar profile, it *may* potentially indicate how they were produced. It doesn't have to - because some ciders will naturally, you know... it may be a very warm year, lots of sugar, etc and the cider naturally may end up having some tropical fruit or a little bit of melon flavours in them. Whereas other ciders may have actually had the fruit, the melon itself or whatever added specifically. I'm trying to acknowledge and go - in that right hand column, it's potentially flavoured or a potential addition - to avoid the style definition. You know, that discussion.

Interviewee_4: You then come up against the definition of cider or made-wine. Trying, maybe, trying to get something [information] out of the third party [cider maker], whenever the implication of that could be phenomenal... Whether you would get absolute honesty every time from that side of things, could be a difficult thing.

RB: That's where I'm trying to go. To try and get the approach, just to taste what's in the glass - it's about what is in the glass. And I think it is. I think the sensitivity around, later on, defining a style or a classification is not one which I... Far be it from me to even have that conversation with cider producers. It is just to acknowledge [that it] could be there and there's a unified approach to actually what is in the glass. What am I getting? I know nothing about it [before tasting]. What is in the glass? That's what the systematic is trying to propose or discuss.

Interviewee_4: Whenever you're talking about your 150 descriptors for wine, in flavour case. How much of that would easily applicable to cider ?

RB: So, two things there. One. When we're talking about 120, it's literally bottles, just to try and help familiarise oneself. I think professional winemakers can buy even more flavours. It's exactly what you were saying. It's just so that they are familiar, to educate themselves, to go 'this is what a particular smell or aroma is' because none of us are able to pick out the differences between a mandarin, you know, and some other fruit immediately. It's just that education and familiarisation. Two. From which of wine flavours, which wine people discuss, could potentially be in a cider? I think all of these which are on this page. And the only ones, actually excuse me, the only ones which I have never seen is hops and beer. But that concept, within wine... Within the groupings, I've extended it further, as well, to try and indicate the primary fruit, as well as other primary crops.

And again, this does not mean that these crops go into to the cider. Yeah, but that's just trying to push that one. And if we look at, let's say, the secondary groupings, and we look at fermentation related flavours, you know, bread, toast, pastry, dough, biscuit. All of these are lees and yeast inspired. Sort of like champagne. You know? Any, any wine which is left on the less. Butter, cream, yogurt. You know then there's malolactic fermentation. Tea black tea is there when discussing tannin. Smokey bacon is probably, I'm sure somebody would argue with me and say that some Australian Shiraz have a bit of smoky bacon on them, but apart from that, not really...

Interviewee_4: Certainly, I have found whenever cider apples are generally not the best condition, shall we say, and they're pressed and then fermented, you then get smokey bacon. There'll be very, very, very slight savour, slightly smoky element to it.

One thing that you have to be very careful with a lot of this stuff is that we don't say that that's a bad thing because it's very easy for someone to look at that and go - that's not my product is - but in small quantities, everything can be there to accentuate other flavours. That's what it's all about. It is all about making people understand - just because something is there, and you have it compared to somebody else - it's not about, you know, should it be there? It could be there by a complete accident. The descriptors are there to qualify your product compared to someone else.

RB: So, two things here. I acknowledge that, say, smokey bacon, all of that, you know, West County, you know, Gloucestershire etc over in the UK, that's exactly how their profile is. And I acknowledged, I'd say Asturian cider, you know, high volatility acid, VA level, some people may go, 'oh, I don't like that. That's a fault'. Everything on this page here, so far, is focused on what the public... what would be shown to the public. It doesn't address, per se... it doesn't address or include faults because I hadn't focused it on the side of the cider producers, themselves, recognising a fault, and not progressing past that point. It was focused more on, for the producers, to discuss amongst themselves and show the public. So it maybe the public needed a simpler version. That the producers would use this version which may then include some, say, ropiness, some mousiness... you know, clear faults, but it's... I hadn't developed this to try and identify faults. It's to 'what is in the glass?'. If that makes sense. And that the glass is past the fault stage.

Interviewee_4: Unless I misunderstand this — the first, the first and foremost way forward on this, is to... you're trying to let people know they're tasting. The secondary thing of this, would be called identification from the point of view of a professional because hopefully, if your fault appreciation, if appreciation is better as a producer, there should be less of it in your final product. To that point, it shouldn't be something that you need to draw the public's attention to. And we're not trying to put people off cider here. We're trying to bring them and make them recognise that you can have very odd flavours that are there because there have to be.

RB: Yes. Yep. It's to show them the complexity of the product, and therefore to encourage cider-makers to make their product more complex - as is commercially viable.

Interviewee_4: Or not, as the case may be. Because there is a mode of thought which says 'make it very simple, make it very drinkable, make it very accessible and you'll sell loads of it'. Because there are some ciders there which are just flavoured water really. Even on the craft side of things. But, there is nothing in them that offends people. There is nothing there which is going, going, to put somebody off. 'Oh, I don't like that, that's too strong'. They're just there and from the point of view of the people looking for a quaffable drink on a warm day. That's exactly what they're looking for. Yeah, and they're successful because of it. And the real aficionados looking down their nose on that but it's a perfectly acceptable approach.

RB: Absolutely. Absolutely. And we jump down to question 11. What are the industry barriers, whether real or perceived to adopting a tasting approach, generally? And, then specifically on tours?

Now obviously, you don't run tours to your place, so that's fine. But overall for the industry, what would you see as the barriers?

Interviewee_4: From an industry approach, the majority of the industry ciders are exactly as I just mentioned previously, they're inoffensive, they're there to... You only have to look at RockShore, which I bought a half-price can [of] there last week, just to remind myself what it was like. It's like drinking alcoholic, flavoured lemonade. It's not...it's not high on my list of priorities, but it was a discernible cider. It was something that was very un-offensive, something that people were drinking large quantities of. It's probably the best, in my opinion, it's probably the best proponent

of that style of cider, that's on the market. For the point of view of Orchard Thieves, which reminds me of my teenage years, when [there] used to be a non alcoholic apple drink called Appler, which tasted very like it. Bulmers is, to my opinion, too orangey. Too sickly sweet. Rockshore tastes like a really watered down cider. If I took some of my cider and really watered up, like, that's it would taste like. That's probably the biggest barrier - the bigger industry guys taking this on board.

RB: So that's the barrier for the bigger guys; for perhaps some of the smaller it's...it's the available knowledge of identification of flavours, as well?

Interviewee_4: One of the best things for a cider-maker, for a potential cider-maker, to have in his arsenal whenever he start making, is the the equivalent of your hundred and 20 wine flavours box, you know, that he had that he could readily identify a problem; an issue before it's initiated and before it becomes a problem. Not having, not having done any of those Peter Mitchell courses, and going entirely on what I have read, what I have experienced....You tend to correlate action and event. So, if you done something wrong and you see there's a bad problem to it, hopefully you won't go and do it again. You know, like 500 litres of strawberry wine going into the septic tank because it was fermented at too low a temperature, that sort of thing. You realise that certain things need to be done. That's a very specific thing.

If you had the sensory ability to recognise, in the early stages of an industry, I think, it would make for a lot better general production.

Daniel and I have talked about this before. If there was a flavour box that you can send away for. You know? Whatever it was you got. You know? You could work your way through different things, whilst tasting a lot of your competitors product. You can say 'this obviously has a lot more tannin, this obviously has a lot more juice'. That's just, you know, whatever that would... that would certainly help to focus your style a bit more.

RB: And I suppose that is nearly an answer to the next question which was, what would you consider as the beneficial outcomes of adopting a formal tasting approach for the producer? And, it's really what you've just described.

Interviewee_4: If you're offering tours, there's 95% of the people are going on tours, want to understand, so they're nearly like want-to-be-professionals. There'll be a lot of people will go on to say 'I'll get to drink cider and that's fine'. There'll be a big lot of people that go 'oh, this will be interesting to the taste something different'. So, I think whenever you're talking about a tour, basically you need a professionals approach. So, a professional can say 'this is how I am going to taste the cider and this is what it should be looking for'. You've got something that, maybe, you can give to the enthusiastic amateur who goes on a tour, to say 'this is what you're tasting, this is what this is'. And then you need a very basic lexicon for the average person that you can tell them 'this is this, this is that'.

RB: On the second point there, there are the people who are going on tours anyway. Obviously, at the moment there's no [tours due to Covid]. There's nothing in place or being used to like this. How do you think their experience would diminish, or enhance on a tour, if something like this was used?

Interviewee_4: For the enthusiast amateur, they want to learn, they want to understand. Whenever I go to a cheese production place, I want to know 'Why you are doing this? What are you doing that? What is the reason for that being done?' I like to know about things. So, the more that you can give that to people that really want it, they're really take to it. It will really accentuate their experience. The people that are there for just the overall experience, it probably deter them.

RB: So, let's say that the foodies, you know, who are just interested in the knowledge. Do you think that they, in their experience, that they would start discussing what they're tasting with each other? Or with the person leading the tasting? Would they be, would they be involved?

Interviewee_4: There would be a certain proportion that would be involved. Really, allowing themselves to sort of absorb the whole experience and then take it away. The most important thing is, if you do offer it to people, that it is done in such such a way that they can take it away. But it's not too complicated. It has to be simple enough. It has to be simple enough for the average person

come in and to take it up in the 15 minutes that they're focused on it. It has to be complex enough for them to be able to take it away and recognise what it is that you're actually offering.

RB: Do you think that they would use the, the concepts from the systematic approach afterwards when they get home?

Interviewee_4: I think the foodies would. I think it's a level of snobbery that people want to have a little bit more knowledge and wanting to appear to be better than other people because they are taking a more scientific approach.

RB: During the tasting on the tour, do you think, they [would] talk between each other? Like going, 'I'm getting mango. What are you getting?'. Would there be interaction, would it be interactive?

Interviewee_4: Yeah. Because I did... I did a thing there a couple of weeks ago with Gabe Cooke, in one of the restaurants in Armagh. Beer versus cider, paired with cheese. I think if you have... If you've got small groups, informal and there is a lot of producer interaction, I think, people then... You can essentially initiate a thought process in people's head that makes them concentrate. If I say to you 'there's a little melon there, right at the very end. Swallow. There's the level of ripe yellow melon'. A lot of people will, all of a sudden, get it. It's a suggestive process. But I think if you have informal setting and bring a slightly more formal approach to it, I think, people do interact a lot more with one another.

RB: I must actually, at some stage... I was probably going to reach out, actually, to Gabe and try and get his view on this as well. I know that he's flagged it in his book. I have it here, his 'Ciderology'. That he's flagging the lack of a unified lexicon, as well. And he talks about... He talks in his book about variations. He tries to avoid the style conversation and refers to 'variations' and words like that. And I spoke to Darlene over in the American Cider Association. And I initialised this in conjunction with them and then tried to extend it and feedback to them. And they were making me very aware of the sensitivity of the use of 'style'. You know, the wording around

style. And so, I had a great conversation with her. I probably at some stage will reach out to Gabe to get his view as well.

Interviewee_4: I would have thought Gabe would be very keen on this. It's very interesting there was one cider, from quite a distinctive and fairly recognisable [producer with] acetic content to it. Definite vinegar flavour sloping through it. And to me, that's all. I'm going to taste it. As soon I taste that - the rest of it tends to go by the wall. But, you know, he was describing the cider as savoury, robust. He had a fantastic lexicon to portray it to the public. I spoke to him afterwards. He was like 'the last thing you want to do is tell the public there's something wrong, because you have to track, you have to be able to describe it in such a way that puts it in a reasonably favourable light, otherwise people's perception, just psychological, that's what cider is'. You know? So, you might have a secondary lexicon that you have for discussing flaws, shall we say.

RB: Agreed. Agreed. That's what I was... what I mentioned earlier on. Yeah. Agreed. And I'm just gonna zip to the end of these questions. I think we've actually nearly discussed them all. One of them was the idea of for people who did have tours, of actually having a wallet-sized printout card, a branded wallet-sized one of these, to see if it was beneficial. Any thoughts there?

Interviewee_4: I think that could be something that could be a tad too far for most people. As with all those things, and I would be tarred with the same brush myself, you get things and it gets put away, that sort of thing. And you think 'I must go look at that thing' that got crumpled up and thrown out... Are you familiar with the sensory company called Pulp? And, they have on each bottle, they have a flavour. They have a graph, of what the flavour is. My first thought was, like, 'jeeez that's well complicated. My second thought was, that's well complicated. My third thought was, that's well complicated'. Even as someone who's really attracted to thing, I just... I find it quite... maybe I'm getting old, not trendy for that sort of thing but I'm just with it. It was like a flavour wheel. It nearly put me off drink the cider. You're supposed to analyse so much in other words.

RB: How do you see the general confusion as to general cider language in the lexicon or in styles being resolved?

Interviewee_4: Who was saying that dry, medium, sweet is the wrong way to go? Was it you ?

RB: What I said, I was acknowledging that in the States that they have four categories. Sorry. Yeah, in effect, at the start of our conversation when we were talking about styles, we ended up, discussing just dry, medium, sweet and yeah, I was pushing back on that, going that is just one facet of a cider, that is just the sweetness level.

Interviewee_4: Sweetness level is incredibly important. I would... I would take quite a lot of supermarkets tastings and the dry or the sweet. How much sugar is in it, is actually the overriding reason why people drink one thing or the other. The fact that you're bringing more flavour into it, the fact you can have a dry cider, even a sweetness level to it, a flavour level to it, is important. The one thing I find about American ciders, I was over at CiderCon earlier on this year, [is that] American cider styles are extreme, extremely extreme, mainstream and weird. The flavour combinations for the flavoured ciders are like nothing we would ever approach to. Like, macadamia nut and white chocolate! You know? We're hard enough pushed with Elderflower and strawberry! Their, shall we say, their seemingly best quality cider is so dry, so acidic, that it is very difficult, in my opinion, to get any other flavours from them because there is so much acid and so little sweetness.

RB: But hence, is that potentially is an unbalanced cider? And is it a case of...

Interviewee_4: I find American Ciders to be extreme. I find that, in my judgement and I'm not one to be in judgment, but I find them to be extreme. I find them to be unbalanced, snobbish - in that we were supposed to like these things because this was a \$30 bottle of cider.

RB: For us, though, is it a case of the horse is bolted from the stable? It's already out in the field? And that's everybody's perception is [that] it's about sweetness or modelling things around sweetness.

Interviewee_4: I think... I think... from the recession in 2010, you know... Daniel and I, both started our business at that time of the fairly major Irish recession. What I found and Daniel found the same thing, was that a lot of people were looking for a better flavour experience for a smaller quantity of a better flavour, rather than pockets of sweet gloop. He and I would both say

that the recession probably helped our business, in that people were prepared to pay a little bit more for a couple of bottles of something that was given them, in their eyes, a better return. So no. I don't think that the horse has bolted. It's a small proportion of the market that you're aiming for... The majority of Magners drinkers are there 'cos it's cheap, it's easily drunk. Personally, I found, in my younger days, [I drank] large quantities. Now, as you get older, I'd rather have a smaller amount of something that I really like the flavour of. So, I think that's an increasing amount that the market is going down that line. The problem wherever you're going to, is how do you make it widely accessible? Is that the supermarket's want everything for a particular price. They're not prepared to ... The way that a supermarket has a price profile for wine, they're not prepared to have that for beer or cider. They want to shoehorn all the cider into a price point and shoehorn all the beer in one price point. From a flavoured cider point of view, you have to sell your flavoured cider at the same price point as your standard cider, even though the duty implication is much higher. That's the big problem for getting a better flavour profiles, I suppose. I think there's definitely.. there's definitely a market for people that want to understand more. So therefore, the lexicon, this sort of approach, I think is worthwhile.

RB: And I suppose my last question was, could you see at cider tours and enhancing the knowledge, given to visitors being used to grow tourists into cider advocates? Perhaps not, perhaps in such small amount.

Interviewee_4: You know what I think one of the most useful things would be? Would be to try to get restaurant owners and workers and bar owners and workers and come on these sort of tours and be given this sort of lexicon. So that they can appreciate that cider does not have to be all sweet gloop. It can be really can be quite sophisticated, in the right way. So, yes. We will have a few people that will come on the tour and would really take to the product because it's been explained to them. But I think these sorts of things, and this sort of lexicon, it is more important for us to get...to get that idea over to industry professionals, first and foremost, because they're the ones that are going to drive whether or not your product is stocked or not and whether or not your product is more likely available to the average person. So, this sort of lexicon, this sort of approach to tasting and to showcasing it in a particular way, I think that's where, personally, where I think the most important emphasis should be.

RB: That's great. I hadn't thought of it, in that way. That's great. Thank you.

I'm really conscious of I've taken up over an hour.

Interviewee_4: I'm ok . I was really busy at the end last week and the beginning of this week, I'm not... We are in a lull period between the early season and the late season... I'm fine for time.

RB:I think that was really it from my side. I need to go back and think about this more and go through our interview 'cos... I think, themes which are coming out for me is a generally, not just from talking to yourself, is [that] within the industry, within the producers, is [that]. picking out those flavours, as you said, and

Interviewee_4: Sorry, say that again.

RB: To be able to pick out the particular flavours themselves, the associations. Recognition is just key.

Interviewee_4: Yeah. Yup.

RB: And I think it becomes, potentially, it could be a communication tool between the producers themselves. For the public, it would be a much more simplified version. And I think, as you've highlighted there, it's not just the cider producers, but it's also the wider industry including, you know, restaurant staff, etc. and trying to involve that wider ...

Interviewee_4: They're incredibly important, because that's your ... Everything is tiered. You've got your producer at the top, then you've got all the people who are going to sell our product. You got the restaurant where people are going to be able to explain your product to someone who is drinking it. It is all about information. It is all about letting people know about what they could be drinking.

RB: Do you see restaurants and bars in the same category or are bars below the restaurants?

Interviewee_4: I probably see bars below the restaurants 'cos they have less time to get that information over to people.

RB: So, in my mind, that's clearly beginning to position cider, you know, beside food. Similar to the white wine or the wine concept.

Interviewee_4: I think that the way, we're all trying to produce cider: a wine glass is more important than a pint glass.

RB: Yeah. I like that phrase. I'm going to be using that phrase!

Interviewee_4: [laughter] You're trying to give a perception that you can understand the product, and you're trying to get a level of sophistication to the product as well.

If you're trying to do a wine lexicon, that to me, it's just a bit more sophistication than, you know, let's just knock it back.

RB: Did you want to talk about anything else on the actual the systematic approach on this? Like what are your further views on that?

Interviewee_4: For me the whole thing comes back to.... If you had a flavour box that allows you to say 'there's flavour A, there's flavour B, there's flavour C'... It would instil a memory, a reflex thought, so that, you know, your first thought would not be 'what is that?' [but it would be] 'oh yeah, that's mango. That's tea'. I do think that flavour box type thing, it is the one thing that I would have found most important...

I would say that one of my talents is blending and bringing the flavours together, to the extent that they don't clash with one another. So, it's amazing, how sometimes you can smell something! You know? I would do quite a lot of one off flavours, for a couple of festivals, that I do. I had mint growing out in the garden, so I made a mint tea and put it into the cider and it didn't work very well. But as soon as I put a little strawberry or raspberry with it! All of a sudden, sales of that particular product just went up by maybe three fold. It's all about bringing flavours together, that merger one together, don't clash with one another.

I bottled a little bit of perry / pear cider at the weekend. One of which is pure perry and the other was a 5-litre of pear cider, 40% pear juice to rest apple cider. It was left there for about a year and

a half and there was a tiny esoteric quality to it. I wanted to see what it would be like and it confirmed my initial thought that that would be better poured down the drain, in my opinion. Some people might like the, as you say, volatile VA, but it certainly wouldn't be for me. But I think, you have to do these things sometimes. To, maybe, re-enforce the flavours. That your first reaction was right. Just stop that and definitely you don't do that again...

I find that whole thing, quite... I think it's a pity that it's taken so long for somebody to come up with some sort of approach that brings up producers together.

It's unfortunate that it's happened this year with all the COVID problems 'cos this would be a fantastic thing for people [producers] to sit down and taste twenty different ciders and say this is A and this is B and whatever...

RB: It would be. It would be great if there had been, let's say, an AGM or like just a meeting of Cider Ireland. You know? That group together would have been lovely... to try and present this to the group, and let them take it from there, as they tasted themselves, there in-place.

Interviewee_4: You know, you asked earlier on 'would people interact with one another at a tasting?'. It's the same way as that if you had been able to present this to everybody, you'd be sitting around talking about it, you'd get a lot more initial reactions off people.

I think it's... I think it's... I think for you to talk to someone like Gabe [Cooke, author on cider] probably, I think, would be well worth while. He is across so many cider producing regions as well.

You know? A lot of time last summer in Norway, in America a few times. He's very much understanding of commercial cider. Which way [it] is made... But at the same time, he is quite realistic about what, how you would present this.

RB: What I might do is, is try and see if I can dig out his email and as I reach out to him, would it be okay if I included you on the mail just to say?

Interviewee_4: Absolutely. Look- the whole thing about this Richie is... I think this is very worthwhile thing for the industry. Anything that improves the overall quality will also improve perception. So, it's not about... it's not about trying to saying 'my cider is better than your cider' or whatever. It's about 'what is the best way to present something that, for my point of view, maximises my sales while maintaining my production ethos or whatever'. So it's, you know... a little tweak here and there.

I have changed the flavour profile of my cider considerably over the number of years that it's being going. It's been over the past three years that I would say, I have a consistent flavour for each one of my ciders. I got some friends to taste, five different batches of cider from the same year and the majority of people couldn't tell, that they were from different batches which I find very gratifying for me. From my point of view 'cos it means that you've maintained a consistent approach. That's important for me. It may not be important for other people.

RB: But I think if the industry has the same, lets say, three out of the five steps that I was talking about, you know, from the lexicon point of view, that strengthens the industry. Therefore [it] will strengthen the perception of the complexity and value of the product, or as Gabe says I think he calls the high value perceived product, whatever his phrase is around that... but we have to have the same language.

Interviewee_4: In this whole thing, do you expect any of the big producers to be interested in this?

RB: Honestly, I wouldn't have thought they would because it doesn't benefit them

Interviewee_4: I personally think you might find a little bit of pushback from them because it is there to extenuate our product rather than theirs.

RB: Exactly. And that's part of the question of competing against beer. Beer is where their money is going to be. That's why they're pushing us. And, as you said earlier on, it's a lot of, let's say glucose-enhanced drinks. A sugar delivery system with alcohol, and, as opposed to something which, you know, can very much be a high, high value product - this is complex, and there's lots of tools and trying to find the words to start expressing the very wide field, and the complexity.

And that's how do we find... Let's just all approach what's in the glass the same way. Whatever the result, is the profile.

Interviewee_4: It was very interesting when we were over in CiderCon. One of the nights, we went to a little cider bar and Tom Oliver was there, tasting the cider. Do you know Tom Oliver ?

RB: I've read of him. By any chance, was it the Northman in Chicago ?

Interviewee_4: No, sorry. We were in California. I can't remember the name of it but it was a tiny bar which sold small amounts of cider for very large amounts of money. Tom is, a bit like myself, no Tom Cruise or George Clooney [laughter]. But people were fawning around him, like it was the second coming, 'cos he was, he was this esteemed cider maker from the UK, with this... Some of the stuff he brought with him was pretty extreme, and was quite, quite, quite, you know, quite extreme in nature. Like you know, it was quite acidic, quite tannic. It really appealed to their extreme nature and things. But it showed how people can embrace a lot of things.

As I say, there wasn't a pint glass to be seen, it was all wine glasses and everything that was being served with it. So, there is... I think. I think the timing is right for this sort of type of thing too - especially in Ireland.

RB: Yeah. Fingers crossed. Fingers crossed. Okay. I was gonna suggest we leave it there just for the moment.

Interviewee_4: Yeah, no - that's absolutely fine. I'm... What I'd say to you is I'm more than happy to be included in anything at the moment. Don't feel like you have to ask at any stage. Just rattle on.

[Interview concludes.]

Interview Five

Date: Tuesday 23rd February 2021, 12:42pm and 1:30pm.

Two Phone Calls.

RB: [Introduction]. What's your understanding of the public's knowledge as to different styles of cider, for example Spanish Normandy, Brittany West Country UK etc?

Interviewee_5: Here in Ireland, very little. There'd be very little knowledge of that. Bar people, possibly in the craft beer realm. But even of that cohort, which is very small anyway, if your craft beer accounts for 2% of beer sales here or something, then, you know, it'd be another 0.2% of that 2% that will be into cider, you know. So, it's tiny the amount of people who would be aware. You know... Food writers and wine writers and foodies, people into it would be vaguely aware of them, but most people wouldn't. Even some cider makers wouldn't be aware of the different styles.

RB: Is there an Irish style of cider?

Interviewee_5: That's the \$64 million question. In a nutshell, I'd say no. But, I'd put a big but to that... you know what I mean ? What would I say, Irish cider style ? I mean historically, Ireland had a style of cider, right. It was a much more acidic cider. You go back to the history of cockagee, and all this. The imports and comparisons to English cider, West Country style, tannic cider - it's quite obvious that Irish cider had much more acidic, wine-like qualities. But that had disappeared if you like. We don't have a traditional West Country apples and so on. So all of our native... Number one: there's no, there's no commercial cider-makers or growers in the country here, who grow native Irish apple varieties, for cider or anything else. So we are quite unique in Europe in all the regions, where, you know, the German, the French regions, like Brittany and Normandy, Basque, Asturias and they all have their own native varieties that are linked to AoCs or... they have to use them for those ciders for those styles. We don't have anything like that. In the UK, they have that, what you call it, PGI for Herefordshire cider or something like that...

RB: And Wales as well.

Interviewee_5: And Wales, that's true. We don't have anything like that. But more importantly, we don't... nobody here grows any of those apples, those native apples, that we could even do that with. The two main crops, the two main apples grown in the entire apple crop here in Ireland, are Dabinett and Michelin. And they are grown for the sole purpose of bulk tonnage for Bulmers. All of the growers who are growing them are growing them for Bulmers. Us, little craft cider makers, jump in there and grab some, you know. And so, basically, you know, all the craft cider makers here only have the choice of those two main apples, in terms of adding body and weight. Dabinett is a good, excellent apple. Michelin is not so great, it's more of a bulk apple. And then, if you take it that more than, more than 50% of the entire crop are Bramley apples. So even though the growers, there's 40 or 50 growers in the country. So, I don't know how many cider growers... there's probably over 20 or something cider growers. So, the other 30 growers are all growing Bramley and they would have a certain amount of dessert apples. So, that accounts for more than 50% of the entire apple crop, it's Bramley apples, which absolutely pretty useless for cider. In terms of quality apple cider, they're just very acidic, bland cooking apple. But they're great for the market and the reason they're grown. They're a great part of our apple growing history and all that. Up the North, you've got the Armagh cider grower, [Loughall] and all that. Northern Ireland would produce, something like, just in Bramley alone, something three or four times the entire Irish crop. I can't over-emphasise the dominance of Bramley in Ireland.

RB: Gotcha, gotcha.

Interviewee_5: And then, and then in terms of cider averages - we've got the two varieties. So, this is what the vast majority of cider makers are making their ciders with, you know. And dessert apples as well. So, so... you've a couple of makers like myself and Killahora, down in Cork, who are growing our own apples. I grown about 120 different varieties. I've all sorts - French, Irish, English cider apples.

But my orchards are very young, so there's....you know, we're still buying apples in. Because of that, it's hard to say, I suppose, maybe a style has emerged out of that. Where the vast majority of cider makers, they use a standard mix of 50% of Dabinett and Michelin, mixed in with Bramley and desserts. So, in that regard, quite a lot of the ciders, most of them, all of them that you have mentioned there, they'd pretty much make their cider like that. One exception, may be, probably

would be, Longueville in Cork who have their own ...Dabinett and Michelin orchard... makes his cider from 100% Dabinett.

RB: Rupert ?

Interviewee_5: William O'Callaghan owns it, Rupert works for William. His Longueville cider is quite West Country style, quite tannic, a nice good cider.

RB: What's your... What's your understanding of the public's perception of when to drink or enjoy?

Interviewee_5: Repeat.

RB: What's, what's your understanding of the public's perception of when to drink cider?

Interviewee_5: Of when to drink cider ? Well obviously, because of advertising, very successful advertising - it's very seasonal, summer drink. It's a result of Bulmers advertising. Direct result of that. Bulmers have always sold it as a summer drink. And it always would have, traditionally, been more of a summer drink than anything. The cider, generally, wasn't ready until the summer. It would have been drank from the summer, you know, right the way to the next season.

RB: Yeah. You've just reminded me I must send on a link. I read a really good... I'm sure you're aware of it but just I know you're interested in the history, of 1737, the Dublin society - talking about aged Irish ciders and the quality of them. And they mentioned, obviously, cackagee but they also mentioned Burlington Crab, Kendrick, Royal Wildings. I'll pop you on the link and the reference just for your own, hopefully, for your only interest.

Interviewee_5: Yeah, yeah, I'm always interested. Sounds familiar. Please send it onto me. I'm always researching all of that.

RB: Yeah. What's your view as to the cider market's positioning, relative to other drinks, such as white wine or the different beer styles?

Interviewee_5: Look, it's hard to say. Cider has been squarely, here in Ireland, because of Bulmer and their advertising campaign, it is squarely positioned beside beer. Like, I have a little... before COVID I was doing tours here and had a little museum and tasting. I have a bottle of Bulmers, a full bottle of Bulmers from 1934, I think it is, and it's in a Champagne bottle with a cork and cage. And that's how cider, up until about 1950, was made. Same as it is in all the other cider making

regions of Europe ...where it is still made in green, 750ml bottles and has its own...[undistinguishable]... and that's how it was here and in the UK as well. In the Bulmers museum over there, as well, they have cellars underneath full of thousands of bottles from the 1950s, all full of cider in green, 750ml bottles. And so, it was only when, post war, that commercial methods starting been deriving, that in Ireland and the UK, that it changed to smaller bottles, force carbonated and back-sweetened and a different type of product. And then with advertising and everything now, here and in the UK, its is squarely marketed right beside beer.

RB: What's your view on adopting a structured, a templated approach, so a systematic approach to tasting cider, similar to what would be available in wine or spirits?

Interviewee_5: Yeah, I think anything that is going to help the consumer to have an understanding of the different styles or different tastes of cider, it's got to be a good thing. The problem I see, the problem I see is that it is going to be hard to define those styles in Ireland - a lot of those styles are quite similar. Then you might have one or two other ones, which are at the West Country end and one or two that are acidic like. You know, the mainstream Irish ciders are that on the mainstream shelf in the shop - there is not going to be a huge amount of difference between them all.

RB: Lack of diversity ?

Interviewee_5: It's back to the apples and all that I was saying about that.

RB: What's your view of its adoption within the industry itself, so not focused or targeted about the consumers, but within the craft industry itself?

Interviewee_5: I was talking to [another cider maker] last week or the week before. I was down with [other cider makers] three weeks ago. The general consensus seems to be that it is a good thing, you know.

But you have this issue here. [Another cider maker] was saying, pointed out to me. I was saying 'how do you do that when the cider here is so sweet ?' We, the vast majority of craft cider that are sold here, are sold at medium. Ok. As you see, I don't have medium or sweet written on any of my ciders for this very reason that, a medium cider here, whether it's [other cider makers] they're all

sweet, they're not medium, they're nowhere near medium in the truest European or world view of a medium cider should contain sugar-wise. Our medium ciders are full on sweet. So how do you address that ? You get someone here, you have your tasting thing here and someone tastes a medium cider here and then in the UK or France - they're going to be complete different. So that's the issue I see here. That's the reason I don't put that on my ciders. I... I... Most people will have dry, medium or sweet on their ciders. Here, I don't, for that very reason. I base my ciders on flavour, rather than sweetness or lack of it.

RB: So... I know because you're on the phone, it's difficult to recall the, sort of, template that I sent you through. It's a two page template and on the first page it is very much focused on the structure of cider and the second page is on the flavours and aromas. And it is quite complex, and it is focused on cider producers themselves and trying to share. You know, I've been speaking to the American Cider Association to Darlene over there, and to Soham from Artefact Cider. And it's the same. Well, it's a different slightly different challenge for them, as far as the style conversation is concerned, but I've been trying to.

Interviewee_5: I'm quite familiar with their the, they're trying to do.

RB: Yeah. Yeah, so you know, they're putting together what they called it the sensory analysis sheet, which they have in the Pommelier [certification]. I think that's based on the WSET wine level three. I've come through the WSET diploma, so the level four, so I was able to feed back into Darlene, with a couple of suggestions around that. But the concept is, part of the lexicon, involves the words which people use for cider-making activities, etc, but in the glass itself, the cider in the glass itself, for people to share the language as to what citrus fruits would be discussed as flavours etc. Or what pieces of the structure of the cider would be discussed. It's too complex for the public. And I know that the American Cider Association recently agreed on, like, four levels of sweetness, but it is very much in the systematic approach. It's a perceived perception of sweetness. So obviously, you know, the levels of acidity will impact a perception of sweetness. And I understand and acknowledge you're saying of [about], perhaps, a lack of diversity within the styles of our ciders. But, the steps which I'm trying to understand is: if we take this as a five step journey. If we only talk about the first three steps. Step one is that: craft cider makers approach what is in the glass, in the same way, every time that they're about to taste a cider. So, it's the same

questions, in the same order, using the same words. If somebody does that, it means that the results, where the tick... I don't say tick boxes but they mark down the level of acidity, the nature of the acidity, whether it's doing or it's racing, the tannin, alcohol, the core axis. But also, you know, alcohol levels, flavour intensity, body, finish and use the same words for flavours, etc. It means that, having tasted that cider, you have a profile of that cider, in the glass, being blind taste. If you taste 20 ciders and 12 of them have an extremely similar profile, you group them together. And that's step three. And step four comes to the point where you're going 'well what will we call that group?'. And that leads on to then, further conversations as to 'do we call this a style? How was it made? Was there, additives, pre-fermentation? Was it a co-fermentation, or something added afterwards?' etc, etc. And that's a really, you know... that's the, you know, the heavy lifting part of the conversation, but the first piece is the first three steps. If everybody, as cider-makers, if people share the language, use the same process, the same method, same question, same words, every time when blind tasting... They create profiles of ciders, and then group those ciders together. That's, that's very much...

[Interview interrupted by visitor and re-convened on separate call later that afternoon].

RB: What do you see as the, as the barriers, you know, whether it's real or perceived to the craft cider, industry, within Ireland, using something like that?

Interviewee_5: I don't see any. I don't know about the actual document itself, I'd have to be looking at it here on a screen with you.

[Discussion about home-schooling on P.C. during Covid.]

In terms of us cider-makers using it, I think, we all love something like that - that's easy and understandable. Right. So I don't see any barriers there, but it needs to be, you know, it needs to be... what's the word... useable, I suppose. Just looking at that there briefly for two seconds, I've seen a lot of use of the word medium for all the different things. Is that going to confuse people in terms of a medium cider? No, but you're talking in terms of about medium sweetness, or medium acidity or medium clarity, or medium?

RB: Exactly.

Interviewee_5: I don't know, it's just a thought I had, looking at it there.

RB: As I mentioned...

Interviewee_5: Is that the standard approach in the wine tasting case of things ?

RB: It's a... it's a systematic approach for wine, for spirits, you know, whiskies, rums, for sake. It's the same approach, or it's an extension of the approach, which the Americans are looking to take. And I spoke to Gabe Cook as well with this, and, you know, and he's introduced me to... I've just forgotten the lady's name over in the three counties. Little Pomona.

Interviewee_5: I know her. I met her a couple of times, she was with us in Cider Con, last year. I've just forgotten her name, it'll come to me. Susanna Forbes.

RB: Yeah, exactly. And, to a group over in Norway as well. So, the approach... It's interesting... All that I can say is that I'm getting quite a good feedback on it. But I'm really trying to, and I'm needing to try and find out - the barriers or the perceived barriers within the Irish, because my thesis focuses on Irish craft cider makers. You know, what would you feel are the barriers?

Interviewee_5: Well, one of them... in terms of tasting, you mean ? Like, I don't... it's not about barriers... it's more about... getting it down-pat, that understandable for everyone. And if that's a format that used throughout the industry, then, that's probably what we need to come with. And then, within that, to try and, as you said, to identify if there is [are] barriers to make it easier for cider makers to use it.

But we need to be able to use it, not just for ourselves, we need to use that with our customers. You know what I mean? One of the biggest problem which I see in it, is people's understanding of the word 'dry'.

RB: Yeah. Yeah.

Interviewee_5: Whereas in cider... It's one of the, it's one of the, probably the... I don't know if it applies in other categories like beer and wine and stuff like that, but, you know, dry is... at least in the Irish public's eye and, I have to say, amongst some cider makers, as well, dry means lack of sweetness. Whereas, there's two types of dry: dryness from lack of sweetness and dryness from the tannins.

RB: Exactly and on the flip side....

Interviewee_5: And that's a concept which is very hard to explain.

RB: Yeah. Yeah, I think the flip side of it is when people think of sweet, it's not just the sweetness level at the tip of the tongue, but people interpret it as ripeness of fruit. So, you can have ripe fruit in a wine but the wine itself is dry, from a sugar level.

Interviewee_5: Yeah, yeah. Like, I have a cider at the moment, a limited release one, small batch, I released it just before Christmas. It's the strongest dry cider on the market, dry as in sweetness, and it's 8.5%. Now, the vast majority of ciders in Ireland are in the 4-5% and the maximum you're seeing is 6%. That's to do with the duty regime, whereas in America and England, you'll see loads of 7 and 8% ciders. We just don't see here, because we are stifled by duty. But I took a dive on this one and I'm charging accordingly for it, to cover me for the duty for it. But the thing about it is, that it's a 8.5% cider, it's keeved, it was sweet initially when I put it in. It's a barrel-aged cider so I put it into single malt casks for 6 months, and it was still sweet and fermenting slowly when I put it in the casks, and it fermented down to dryness. Almost 2 degrees specific gravity left in it. Now, anything in English terms, in English categorisation, anything below... well there's two categorisations in England... anything below 8degrees S.G and the other is 5. So, it depends on which one you go for. So, anything below 8, anything 8 or below, or anything 5 degrees or below, is classed as dry. So, it's 2 S.Gs in this, so it dry-dry. It's as good as bone dry.

RB: It's like naturale... I was going to say champagne which is brut but it's dryer than that, it's naturale.

Joint: [Conversation about champagne.]

Interviewee_5: It's not even perceptible.

RB: And that's exactly what I was about to say. So this tasting template - it's perceived sweetness.

Interviewee_5: OK.

RB: because ... and that's where ...no one's going to be ... It's blind tasted. There's no measurements for specific gravity are such there. And it's just tasting this blind - what does one perceive the sweetness level at? Obviously, the level of acidity impacts the perception of sweetness.

Interviewee_5: Yeah. Absolutely. And then when you throw tannins in the mix as well. That, just... and that's why I mentioned this particular cider I have, it's, like I said, it's more or less bone-dry, but tastes sweet. And that's between the interaction of the apples, the tannins, the acidity, the barrels, whiskey. It's a lot to do with the whiskey as well. Whiskey by its nature has a lot of perceived sweetness but has not sweetness and sugar in it, whatsoever. That's why this the bone-dry cider actually tastes quite sweet, but it's not, there's not sugar in it. It's totally perceived sweetness. So you have that - so that is a good approach. I take that. I'd put that in big capital letters at the top: 'Perceived'. Because, in reality, when cider makers are tasting and we're tasking amongst ourselves, we all like to know the SG and the grams per litre of acidity, and types of apples, which usually give an indication of the tannin levels. That's all very well for us, but the general public haven't got a clue about all that. And no one wants to know about them. They don't want to hear me say it's got 2SG. So with the public - everything comes down to perceived.

RB: You mentioned earlier on something which could be interpreted as a barrier to adopting this within the industry. And it was, the fact that you felt, and I'm paraphrasing here... that perhaps there wasn't a wide enough spectrum of different, can we say styles of cider in Ireland, to make this worthwhile? Is that a, is that a fair reflection of something which could be a barrier, or am I reiterating that correctly? How do you view that?

Interviewee_5: That's kind of my opinion. I've known pretty much all the cider makers here. I know all their ciders and they all made from the same mix of apples that I'm talking about. They're all, generally, done in a 500ml bottle and they're generally, generally at 5%, and 20% water added to them and they are all back sweetened to, in Ireland, what is categorised as a medium, which would be about 12SG. So in that regard, there is a certain sameness there. But having said that, I bet you, if you got all of us in here around a table together, we'd all argue profusely that all our ciders are very different. You know?

RB: Indeed - and there is a variety. Like, obviously, some of your intense keeved flavours. [The] intense flavour from the keeved is lovely. You know, [another craft producer] have iced cider at the moment and I'm speaking to [craft producer] tomorrow. You know, [craft producer] has tawny. He's looking at some, you know, cider wines as well, and Elstar.

Interviewee_5: Everyone is, in fairness. Now you're talking about sub-categories there, when you start talking about tawny, ice cider and amber wines. And stuff like that. They're all sub-categories, there. You're not going to be tasting a Sauternes wine beside a Riesling - they're different animals, you know what I mean ? What I'm talking about is your standard ciders, unified around the 6% range. You know what I mean? Like an iced cider, you can't I make ice cider myself. I don't sell it but I make it for years. 10 years nearly. But it's not... you can't, it's not fair...

RB: So here's the thing. Here's the thing. Here's the thing coming from the wine world. It's the same, in the wine world, it's the same systematic approach to tasting, the same template, which is used for wines, for all wines, including ice wines including fortified wines. Slight minor, minor difference in fortified wines around the alcohol levels. And there's also a systematic approach template for tasting spirits. And that template covers whiskies, rums, tequilas, vodka. All. All spirits.

Interviewee_5: OK. Alright. Ok. Well then, that makes sense, like. And I suppose if you're looking at that sheet and marking it, and tasting an ice wine, you're going to be saying it's really deep in colour, super sweet, highly acidic. So yeah, that's fair enough, then. I take back!

RB: No, no, no. It's actually a really good discussion, you know, and I'm trying to understand. There's a, let's say, within the majority of ciders produced in the country, there's, there's a small spectrum of, potentially small spectrum of variation. And maybe that's a barrier within the industry to saying 'Would we bother adopting?'. 'Why would we adopt?'.

Interviewee_5: Well, no. I'd probably say because of what it says, that would be my opinion. Some people might think, it's somewhat derogatory. It's probably fair to say that all the cider-makers think their own ciders are on their own and individual, so I wouldn't necessarily think so. That's just my kind of....I'm quite familiar with all the different styles whether they are Asturian or Basque and Normandy and Apfel wines. I'm familiar with all of them. I'm a bit bias in that regard, I suppose. There are so many stark differences between them. But, having said that, if you were to

take this sheet of yours, and if each individual cider maker was to, you know, categorise their own cider within it, then you might find a difference. You know ? Amongst us.

RB: Or even someone external was to taste them.

Interviewee_5: Well yeah. Yes, obviously.

RB: It's... it's fun...it's an interesting one. At the bottom of the sheet, there's the quality assessment or the perceived quality assessment. And that's...it's like there are four tick boxes or points to be gained there. And one is - is it balanced and what's the balance between? You know, tannin and acidity or acidity and flavour? etc. There's the length. Is this a long or medium plus length? So, is it 15 seconds or longer? Is the flavour intense ? Is it medium plus or more pronounced intensity? And then, its complexity? Is this medium plus or pronounced complexity? And, if one has all four, I think it's fair to say it's an outstanding cider. If it's, let's say, it's good - it doesn't mean that it's not, you know, not a commercially, hugely successful cider. But, it's trying to give the basis of a viewpoint and sharing that viewpoints on the same basis, every time.

Interviewee_5: Yeah, no. That makes sense.

RB: And, I just had another couple of questions. You mentioned that you had ... some cidery tours.

Interviewee_5: Yeah. Not at the moment, I'm not.

RB: Is this template...appropriate or inappropriate for special interest groups? Like, you know, visitors? Is it too focused, too technical? Is it better for the industry itself?

Interviewee_5: Yeah. Well, yes. It is something that people would probably... like, I just do one format for a tour, the last few years I've been doing these. I might get a busload of people or a couple of car loads, 20 or 30 people... whatever... I do a talk down in the cider shed, down there, do a dry pressing, talk about the history of cider and how it's made, and how I make my keeved cider. That lasts about 1/2 hour to 40 minutes and then, I have a little tasting room/museum area where we work for another 1/2 hour to 40 minutes and do a tutored tasting. My ciders are so... I have 3, 4... 4 ciders and a perry and they are all markedly different from each other. Quite distinctly different. They are all very different styles. And so I'm able to give a tutored tasting there and bring them through the different styles that I have. I have a trio of ciders, which are quite distinctly different from each other, making different types of apples. Like, a lot of cider makers

here or in the UK, would also have a trio of ciders and they would usually be just a dry, a medium and a sweet. That's all.

RB: Agreed.

Interviewee_5: And they are quite often, usually the same kind of base cider, that they might use. Some slightly different apple but they are basically that dry, medium and sweet differentiator. Differentiated by the amount that they are back-sweetened. Whereas my trio aren't like that at all, they're based on flavour. The first one, Cider-kin, is made 100% of eating apples. The middle, Windvane, is made of 50% eating apples and 50% bitter-sweets and then, the final one, Lamhog, is 100% bitter-sweet. So, they're three very different....

RB: Profiles ?

Interviewee_5: Profiles. On the first two, they're the same level of sweetness but people perceive them completely differently... 'cos I always ask. We taste the first one, and then the second one. And then we ask 'well which one of those do you think is the sweetest, as a matter of interest?'. And invariably, it's split about 50/50, in my experience. 50% will think the first one is sweeter, and 50% will think the second one is sweeter. Whereas, in fact, both have the exact same level of sweetness.

RB: Interesting.

Interviewee_5: And the last one, the Lamhog, is much drier than either of the first two. And... but invariably, most people.... no, I won't say most... 50% of the people prefer the third one over the other two, 'cos it has got so much depth of flavour from the cider apples, and even though it's drier. It's kind of a connoisseur's cider, I suppose. So, like, those three ciders could pretty easily fit into that thing.

RB: Two last questions. One of them is, would you consider using the template, when you're doing... you're doing those tastings with the visitors?

Interviewee_5: Yes and no, and I'll tell you why. The problem with it is: invariably when I have tours coming here, tours that are also going to the distillery or another farm or another thing, so I have time constraints. In terms of, usually, if I let it run, it'll go for an hour and a half. But most of the time, I'm trying to get it done within an hour because the tour operator wants them in and out within an hour. So, there'd be a time constraint there, in terms of people filling out forms. But having said that, there would be a place for that.... like... say a distillery is a more advance place,

I'm very much a one-man operation, farm house kind of thing, mickey-mouse operation if you like. But, say, a lot of the distilleries and bigger places, would have tailored offerings in terms of tours and types of tastings and more advanced ones and stuff like that. So something like that would work - to offer more advanced, kind of, cider tutorial kind of thing. Sit down, you know, with some time on your hands. Like definitely, people would be into that. To get a form in front of them and to sit down with six ciders and evaluate them all. But I imagine that being somewhat time consuming.

RB: OK, last.... go on, excuse me.

Interviewee_5: No. The way I do it at the moment, I tasting 5, I do the full tasting 5 different things. It's very much a speed tasting to get through them all.

RB: That's fair, that's fair. Last question. How do you see the confusion or the difficulties as to the general cider language or lexicon around styles being resolved?

Interviewee_5: I don't see it being resolved any time soon.

RB: Okay.

Interviewee_5: [laughter] bar your efforts here now! But I see this thing, the lexicon as the Americans like to call it, it's very... the whole problem with it - is it is so subjective. And like that, I give you an example of two ciders where people are split 50/50 as to which one is the sweeter. And you could do the same on the acidity in them and the tannins, 'cos the first one has no tannins. I see the Americans... I follow that the last couple of years, the American Cider Association and the various iterations, they've had there. The lexicon thing there. The categorisation of different drinks and all that. I wouldn't say it has caused a lot of confusion, but it has caused a lot of controversy. Some cider makers over there in America are saying it's rubbish, it's just not workable. And then you have, the categorisation of sweetness, and I pointed this out to Cider Ireland at some point when we were discussing it by group mail or something, and I didn't get a single reply to it and understandably so. But someone [names] suggested adopting their sweetness things. I just pointed out that, well, yeah, that's all very well and love to see that, but then everyone in Ireland would have to re-categorise their cider as medium and sweet, you know. And there was silence from the group.

RB: But, I think the key thing is going, whether it's, whatever word is used around sweetness or collection of words, whether it's the four which the Americans are putting forward or five here in Ireland - the key is, what is in the glass, what is somebody perceiving in the glass?

Interviewee_5: Yeah. True. That's true. But again, there is two things. One thing is that issue of the dryness. That needs to be overcome in some way that it is understandable for everyone, in terms of sweet and in terms of tannins. That to me is the biggest barrier, or confusion area for everyone.

RB: Yeah, and that's why, in the template, I have, in the perceived sweetness level. Dry is there, but also within the tannin, which is low, medium minus medium, etc, on the right hand side. The nature of the tannin. There's also descriptive words there but they are descriptive of the tannin and so hence, the drying on the gums and the teeth. That's the... as you're saying, one has to recognise multiple dryness, but also separate them out.

Interviewee_5: Yeah, yeah. That needs to be... if you think of a punter coming to that sheet there, it's not explained.

RB: Agreed. That's why this template is just focused on the producers, not yet, for the public. A different version is needed for the public.

Interviewee_5: Ah. Ok. Ok. So yeah - that's probably the biggest problem, I see - in that regard, for that to be crystal clear. And also crystal clear for cider makers.

RB: Yeah, absolutely.

Interviewee_5: Because I found that, like, I was down with James and Liam there a few weeks ago, tasting all of their ciders. And, we're discussing them and, all three of us, using the word dry but we have to tempter that with a 'agh, I mean sweet or I mean tannin...'

RB: Exactly. And that's why the template is, sort of, there to go 'right - to ask the questions, the same questions in the same order every time'. Going 'what are you getting for the sweetness? What are you getting for the acidity? What's the nature of the acidity? What are you getting for the tannin? And what's the nature of the attachment?' and then it moves on to alcohol. So it's about cutting out... I'm going to go - assumptions or miscommunications - by everyone using, the same template, the same questions, same order, same words.

Interviewee_5: So without looking at it there again as I'm on the phone while I'm talking to you. The two types of dryness - are they together on the sheet ?

RB: On the palate, the sweetness levels, and it's the America ones - so apologies - it's dry, semi-dry, semi-sweet, sweet. And then, jump down two questions to tannin level. So, tannin is light, medium minus, medium, medium plus, high. And then, there's another section for describing the nature of the tannin. And you then have examples. So, fine...

Interviewee_5: But are they all together ? They're not separated by other questions, are they?

RB: Exactly, exactly. And the word.

Interviewee_5: Whereas would it not be better? It's just a suggestion here. If you want to make that distinction between them, to make that crystal clear - if you have them together, if you had 'dryness (sweetness)' and then underneath that you had 'dryness (tannin)' so it's clear you have two different types of dryness. And you have both. It's just a suggestion.

RB: Oh yeah. No, no, no, - that's cool. It's actually, I know you can't see it at the moment. I have separated them out and made it clear, I think, on the template. And in fact, the tannin level is just light, medium minus etc. It's the nature of the tannin is, one of the words examples, is 'drying'. So it's "drying tannin".

Interviewee_5: Right. OK.

RB: And so, it's a slightly different word, in a different place, to show that separation.

Interviewee_5: Ok. Ok. Yeah. That's just what... I hadn't really thought about it much, but I would just imagine on a sheet like that, that you want to try and deal with it. If I was tasting it here, with Liam beside me or someone and we were using that sheet, I would imagine that you'd be better off saying 'right, let's deal with the two types of dryness now. What do you think here ? Is it sweet and how drying is it?'

RB: Yep, what you're talking about there is the sweetness level and the tannin.

Interviewee_5: Yeah, exactly - that's what I mean. You make that judgement on both those types of dryness together.

RB: Yeaaa... emmm...

Interviewee_5: At the same time, so to speak.

RB: Emmm... Nearly, nearly actually! This is just my opinion. So, it's like because this sweetness is, you know, tip of the tongue type thing, and, but sweetness is impacted by acidity. Immediately, acidity comes and then it's tannin. So I just... I have acidity between the two of them, because of the physiological reactions in the mouth.

Interviewee_5: Right, ok. That's fair enough. Yeah.

RB: Anyway, I know it's hard to talk about it when you don't have it in front of you.

Interviewee_5: No. This has got to do ... you were asking me a minute ago about problems which need to be overcome and I immediately answer was 'not anytime soon' and it's because of all of this. And it's fair enough, you're doing this for the producers first, and everything else, and that makes perfect sense. But, you know, we as producers are tasting all the time, I suppose we're more acutely aware. But in terms of the public which, you know, it's much more difficult to get their heads around these things.

RB: 100% agreed, completely. Yeah.

Interviewee_5: Are you doing anything on the different... you're not dealing with different types of apples and tannins, or the American thing about traditional and modern ?

RB: No. At the moment, I'm just focused on actually the systematic, so - say the first three steps. And I think the

Interviewee_5: That's one of the things which causes big controversy over there. That conversation about modern and traditional, 'cos a lot of cider-makers would think that a lot of modern cider can be made out of traditional apples and vice versa.

RB: I think the Americans are trying to answer the question right to left. They're looking at styles and then trying to retrofit everything into it, as opposed to left to right, which is your blind tasting the drink - what questions you're gonna ask? How are you going to? What sequence you're going to ask them in? How are you going to mark the answers down? Aka the profile. And then, how do you group things together ? After that the conversation moves to 'what do we call it?', and then, what are the rules? I'll pop you on... I'm drawing a diagram, as well, which I might pop on to you. Just to get your view on this and but it's the tastes which I have, the flavours which I encounter in the glass, may or may not come from a particular variety, you know, Kingston Black or whatever. But it's, you know, and as Darlene said. I'm not sure if it's Yarlinton Mill or whatever. She was

saying look, this apple, on the East Coast has a certain taste and gets a certain level of sugar and therefore alcohol, but on the west coast, on the other side of the Rockies, this is a different beast.

Interviewee_5: Yeah, absolutely. That goes for all apples! That's down to terroir. What the Americans find is that a lot of these English varieties with high tannins, whether Yarlington or Dabinett or Kingston, Chisel Jersey, traditional West Country bitter-sweets, don't build anything like the amount of bitterness in America as they do in the West Country.

RB: Yeah. Yeah.

Interviewee_5: And I'm sure the exact same here. Our climate is so so different from the UK. There are many apples grown in the West Country, that just simply won't produce an apple here. Our climate here is so wet compared to the West Country. Although Dabinett and Michelin are successfully grown here. That's the reason, there are so successful. Those two apples trees are bombproof in the Irish climate. But I bet you, the Dabinett tastes significantly different to a Dabinett grown in Herefordshire.

RB: Alright, Mark, that's it. They were really the key questions which I had. So, I'm really appreciative of your time. I'd love to, if you got a chance to, to look at the template further and if any feedback, I'd love to get it.

Interviewee_5: Yeah, sure, I will come back to you.

[Further thanks and discussion finishes up.]

Interview Six

Date: Friday 19th February 2021, 4:00pm.

Online, Zoom.

RB: [Introduction.]

What is your understanding of public's knowledge of different styles cider. For example, Spanish, French, or that the West Coast, the West Country of England?

Interviewee_6: Personally I think Irish people don't really have any understanding of cider. Obviously, people have traveled and have gotten ciders here and there. I think, I think a fundamental difference between the largest consumers of cider in the world, the English, and the Irish, who are the second largest consumers of cider, is that the English value cider and kind of appreciated a bit more, whereas, I think, cider here is, is liked, but not, not really appreciated or valued, to the same degree.

RB: But it's... it's the Irish style as, as a singular noun?

Interviewee_6: Pretty much. You know, I know some of the other questions touch on this but singular for a sunny day type thing. I think it's... There's no real value put to it, you know. Naturally, there are people who have been to various countries and have had the various styles and can tell you they like that [or that]. But, you know, the amount of people have told me that they like French cider and I'll say 'well, what style do you like?'. 'French'. 'You know, there's a heap of different styles of cider, which one did you like?'. 'I don't know, it's just French'. You know, so you got that or somebody said 'I had great cider in England, blew the head off me'. You know, there's not really.....I see, very little... I see very little analysis anything more sophisticated than that Richie, to tell you the truth.

RB: Okay. And then. Next question. I suppose there's two pieces to it, there's two perspectives - is there an Irish style of cider ? a) for the public, and then b) generally as cider makers?

Interviewee_6: Yeah, I think the public... Irish cider is probably perceived on the back of Bulmers, and particularly from an English point of view, you know, they would keep talking about, you know, your Irish cider - your sweet Irish cider, sweet and bubbly. And, you know, I've had this with various people. One lady in particular, I recall that she was quite the proponent of still, really bond dry, cider and eventually, I got so fed up listening to her, Richie, I kind of said, you know, there's a reason your style of cider hasn't taken over the world. You know. It's not that palatable. So, I think the Irish cider is carbonated and tends to be quite sweet.

RB: Okay. So if that's a public perception, do you think that from a craft cider and Irish craft cider producer?

Interviewee_6: I think we'd like to get away from that. But nevertheless, the reality is that you sell into a market and you must give the market what they want, and, I know personally, I've never labeled our ciders as mediums, sweet or dry. I know most cider-makers do. And the reason I've never done it is because everybody, you know, has a different concept of sweet. The most popular ciders, the higher selling ciders, tend to be, even in craft, tend to be the sweeter, most non-challenging ciders and, you know, again, there's a reason why Budweiser is the biggest selling beer in the world, you know.

RB: When you say non challenging, you mean, is that... the lowest common denominator ?

Interviewee_6: It's even to the point of not having some, some of the wonderful cider varieties of apples that are out there like Yarlington Mill and things like that and get, you know, get Tom Oliver, a fantastic English cider maker, get his Yarlington Mill and taste that and go 'Wow'...

RB: and his perries...

Interviewee_6: You know, his perries are brilliant. He's a great, you know, he has a great offer. And when I say challenging, t's not that the Yarlinton mill is ...[that] everybody can drink it, but nevertheless, it's got its own unique flavour that makes you stop and think and say 'you know what, you know, what would be good... what food would be good with this ?' 'You know what, it's more than just a summer beer garden drink'. That's what I mean. It doesn't have to be particularly challenging in terms of barrel ageing, or anything like that. I just think that there's a long, you know, [list of] beer styles. There's a billion different beer styles of which, you know, I keep on, regularly, weekly perhaps... I still see new styles and I have to look it up and go what's that. With cider, you can do nearly the same thing, you know, for the different varieties.

RB: Is it... is it an educational thing to the public here ?

Interviewee_6: Yes, but I don't think the public, the mass public, wants to be that educated in it. I don't think they want to. I think the mass public has kind of got their heads around four or five different types of grapes in wine and that's about it. So, do they really want to know about 20 different types of cider? I'm pessimistic on that, Richie. I don't think they do. It goes back to where I see Irish people and the value they put in cider. I don't think that value is put [on it]. I love to drink it; just give me a nice cold cider, fizzy, sweet, relatively light in flavour and Bob's your uncle.

RB: I think you've probably answered my next question of what is your view as to the public's perception as to when to enjoy cider?

Interviewee_6: Yeah, look. You would, I know it's not quite as drastic as this, you'd nearly see a fella drinking in a beer garden - on a cloudy day, you might be drinking stout, the sun comes out, he changes the cider and cloud laws passed, and he goes back to stout. Within that, women, I would see and, and fresh, fresh eyes. A friend of mine, one time came and helped out at an event we were doing. And he said, he never realised how many women drink cider. Lots of women don't like that hoppy bitterness that lots of beers have. Obviously, you know, drinks like wine or spirits. It can often be quite light on flavour because it's fruity, there's a bit of alcohol and it's not too much. I've had various people telling me through the years, various women say they like cider because there's not too strong. You know, if they drank wine during the day and they've been, you

know, knocked out type thing. So, I think, when to enjoy cider? I think, sunny days really do come into it. And then, there is a, I think, a marked difference between men and women in that, and women are more likely to enjoy that, more regularly than men. I think men mostly switch onto cider mainly because of the sun.

RB: What is your view as to the cider markets positioning, whether it's competition, relative to white wine or different beer styles?

Interviewee_6: I think, we've probably really missed a trick, as cider-makers, to get into that place...to get into that place, maybe shy of white wine. Given, again, the gender balance of a lot of the people who drink it. The different beer styles. I really think, the beer guys have, in my view, and I've said it to a couple of different people, I think, they've sold snake oil with some of the pairings with food. I think, a lot of beer does not go very well with food. And I think, cider is a much better natural accompaniment to food being fruit based, and also the acidity for different fatty foods. And I think, we probably haven't as a, as an industry, found our position.

Our position has always been, you know, you're straight up on the counter there, you're in the long alcoholic drinks, it's either cider or beer. And unfortunately, for various reasons, cost of production, duty rates, all the rest of it - we can't be there, alongside beer. You know, at the moment I'm looking at a piece of business and I'm telling the retailer: "You know what? Why are you selling that cider so cheap, when automatically in a 500 mil can, for example, there's 25 cents more duty on the cider compared to the craft beer. You know, it's just a fact of life. We can do nothing about it. The cost of production is is higher, and then, our taxation rates are higher and yet, you're insisting on devaluing. You know, so, I find that quite difficult. So, back to the question: we probably haven't positioned ourselves well. We're seen as a direct alternative to beer.

RB: Okay. So sort of changing tact a little bit. Do you offer tours of your cider mill?

Interviewee_6: Quietly, yeah. Yeah, we have. We have done. We don't really advertise, but people have contacted us and asked us, do we do them? And we say yeah. We're hoping to get ourselves better geared up for that in the future.

RB: Sorry, you just touching the mic again.

Interviewee_6: Sorry, some paper on the microphone. I think in a normal world scenario, Richie, I think, this type of experience in every country is something that people want to find.

We had some cider makers from... We had a cider maker and some of her best customers. She told me. I said it's probably not the best way to describe people as very good customers of the cider-maker! They came and they spend time with us. All from the States. And whilst I'd done some tours previously, it really was... and it's a little bit like, you hear the same thing but eventually you cop onto it. They also visited Mark Jenkinson, I think they visited Daniel Emerson as well, but they just really wanted to pay for... not, not to see the orchard, to see the tanks or to see anything. They want to see me. You know, they wanted to see the cider maker and I say that wasn't me, essentially. If they came to [interviewee's cidery], they wanted to see me. If they went to the Slane Cider Mill, they want to see Mark. If they went to Stonewell, they wanted to see Daniel. And that was it. And I think, people are beginning to, to have that view, even to the point of... You could have staff there, showing people around, letting them taste the same things as I've let them taste and talking to them and that would be enjoyable. But people value, very much value, meeting, or been able to discuss with the maker or the person who started at it. Or, you know, the person kind of synonymous with the brand.

RB: It comes to the personalisation for them, within a locality which they can then identify.

Interviewee_6: Absolutely. You know, and they might enjoy it without ever seeing me! But if they, and this wasn't, you know, don't take this the wrong way, if they see me or they see Daniel or see Mark, you know, that's a connection, that's a connection to the brand. And they can walk away saying 'you know what, I didn't much like the fellow's cider, but the fellow himself was nice enough' or whatever. But they still have that, you know, connection. Absolutely. So, yeah. We do quietly offer tours. We're not as well set up for it, as I'd like to be. So when we get there, we will really publicise, you know, really work on that.

RB: And, question number seven is, what's your view on adopting a structured approach to tasting cider and by that, I mean, templated?

Interviewee_6: Yeah, I think anything that makes it easier for people to evaluate, assess what they like or don't like. Then, I think that's better because people aren't afraid of delving into it. The amount of people at trade shows, that I could tell you, that would take a sip of cider and say 'yeah, I can really get the hops on that' and you're kinda going 'aaagghhh, look, would you cop on'. I see, at events, not that far away from you, like the big grill and things like that. I see, the ... Sometimes, I see the reluctance of men, even to go to the beer guy beside me, you know, which would typically be Kinnegar or Wicklow Wolf. I see, the reluctance. In case, they get questioned, in case they get found out that they know nothing about beer. Once you put women behind the counter, it's a completely different dynamic. And it feels non-threatening to the man, to go up and say, do you just anything like Heineken? Do you know what I mean? Most craft beer makers will tell him to [expletive]. Hey, if it's somebody seen to be non-threatening, it gives them the confidence. So, if there was a structured approach, I think that it allows people to have more confidence about it. To access it. And people who are on the, you know, producers who are on the wrong side of that, it kind of still allows them to up their game and, and get to the right side of it, in terms of if it seems to be too acidic or too dry or, you know.

RB: Let me ask, because I know the next number of questions were particularly focused on, you know, tours and things like that, because that's where my initial interest area was. And I'm going to ask a very specific question now, and it's focused on cider-makers, craft cider producers:

what's your view on adopting systematic process of testing within the industry itself?

Interviewee_6: So, so. I suppose, Richie, expand on that - to what purpose ?

RB: Okay. I suppose your initial response is obviously 'the public's reaction and the use of it'. You mentioned things like, there are, I think, you know, there's three levels of sweetness etc. I know, within Ireland, when you talk to [other makers], there could be five. I know by speaking to Darlene over in the American cider Association. They had those disagreements . They've now

agreed on four. And this is all, you know, they're trying to train their sommeliers, they're calling 'pommeliers'. They're trying to agree the lexicon. And, there's a couple of strands in that. There's what words do we use? The basic lexicon. There's the end point, which is - we agreed the words, we agree with the tastes, we agree how it's made, where it's made etc, potentially, and we now have a style. Then if we agree over those things, we could look down the, you know, AoC route, PGI protection. Even if you don't get those protections, but you agree that a style is known to taste like X, is typically made in a particular way - that allows people to say it is a style or style inspired.

All of these items come back to "what does it taste like?". And we know that there's, you know, let's say, three major axes upon which a cider is structured. But if people are not using the same words in the same lexicon - as producers - they can't have those conversations between each other. Every producer would be an island on their own. Whereas if there's a shared language and a shared approach so that you can taste that, say Davy's, you know, it's a little bit more tannic, a little bit more Western Country, English style ciders, or, you know, something really bold from Daniel. It's like going: actually, we can all talk about these ciders in the same way, using the same language. And so the profiles of what comes out... I sort of have this thing of where I talk about steps. I go one step one, if, as producers, if people can approach the cider in the same way in the glass, blind tasting it, I'm gonna go through the same steps, and ask the same question, use the same words, then the result of that is a profile of the cider in the glass. If you then are tasting 20 ciders and you go, actually 'you know, eight of these are stunningly similar', you group them together and you now have a group of ciders. You don't know who has made them, but now you have a grouping. And that's moved you much further down the line of going 'what will we call the group?'. Then you're using wording. Well now, we're talking style, potentially. Then you talk about how was it made. Was there something added afterwards, was it a co-ferment etc? I know, what's his name? Soham over in Artefact Cider in the States, he's just joined the board of American Cider Association. Speaking with him, you know, he's looking at going, they need to take a step back and actually agree - what is cider, you know, because if you add something afterwards, he's trying to say it's 'cider with elderflower', as opposed to a co-ferment as a concept. You know, and it's all of the language [debate] is difficult. And so hence, putting it back to yourself then, as a, as a cider-maker. And, I know I've jumped forward a couple of steps, but it's a fair question to ask. So, let

me go back. As a cider maker, what was your view on adopting a structured approach to tasting cider?

Interviewee_6: Yeah.Yeah, I suppose I... I haven't... I haven't thought about it. I've been thinking, very much, on the way of looking at things from a consumer perspective.

Yes, there are styles of cider in terms of tannic, acidic, light, barrel-aged. All kinds of different things you can do. I think, you'll probably find that, that.... Yes. So, so, so adopt a structure... I think you'll find that there probably are as many styles of cider as there are beers. There would be a big, big range.

RB: Is that the end result of the conversation?

Interviewee_6: I think, it's probably... it's maybe not the desired end result but I think it would be the place where you would get to, because I think it would, it would get to a point where...Well, but...

It is a difficult question, Richie. As an initial opinion, I'm thinking - yeah, look anything that helps is good. I think you would find lots of different styles or hybrids of styles that would come into it.

You know, you mentioned earlier but...but trying to get a style...

Mark Jenkinson is a wonderful Cider maker, and his keeved ciders are, you know, really, really good. And I've tasted lots of ciders that I thought were really good and hadn't been keeved and tasted lots of keeved ciders that I thought were poor. So, it's a difficult one to get clarity on. And anything that helps clarity is going to help progress.

RB: So, again, I'm gonna bring it back a little bit, because I think that conversation of using the word keeved - what's the style etc ? What we expect from France and obviously Mark is making it as well. But that's at the end point of step four or five. If you reverse engineer it, you're going: 'well, typically I would expect all of those put into this group to taste like this'. And if it doesn't taste like this, this profile, using a systematic approach, then it's not. You know?

Interviewee_6: What if it is ?

RB: It may be made in that production manner. Okay, so chapeau brune [term relating to the production of keeved cider] and all of that type of stuff. But really, let's say it's not intense, let's say, there's no flavour intensity.

Interviewee_6: As a small example, I make a single varietal cider called Katie. We grow a small amount of it. And typically, what we do is we juice about three quarters of it. It's one of our earliest apples that we pick. We pick it in August and we put the other quarter of it into coldstore. We let the three quarters ferment out, fully dry. That'll happen in six weeks because you're generally got warm temperatures outside. Then, we let that to sit it there for a little while. Then we are ready to filter and process and all the rest of it. We press the other Katy juice, we add it back into the Katy cider...

RB: So back-sweeten it?

Interviewee_6: Yeah. We're back-sweetening. So now it's 100% Katie. Bottle it. We sent it to the Great Taste Awards. And, the Great Taste Awards is a fine award system and would hold themselves out to have the correct judges, in the correct places, the correct categories, and so on so forth. Thankfully we entered it once, we won a couple of awards and that was great. The feedback on Katie came - that there simply wasn't enough Katie flavour and it was 100% Katie and most of the Katie ciders on the market are about 50%. And I'm kind of going: 'Okay, so it's a, it's a single variety, it's a Katie cider. It didn't hit your....

RB: preconceived...

Interviewee_6: Yeah...

RB: Yes. So let me, let me jump in. I need to let you do most of the talking but I know, again, what they're thinking about in the American Cider Association by speaking with Soham, is they're looking to do something like this - to create profiles of classical styles and classical varieties as well. So that if you give a, lets call it, a reference catalog.

Interviewee_6: Yeah. And then you're based on that.

RB: Exactly. But, even for him to get there, and I've obviously shared this systematic with him - he's going 'you've got to approach what's in the glass in the same way, same methods, the same words, the same questions, every single time'.

Interviewee_6: As an example, I think it's going to be very hard for the States to get their head around this whole thing.... it's so.... it's so... We were at Cider Con [annual international cider conference] last year and it's so, it's so diverse. It's like the country itself. It's so diverse and what people want, or expect, from [what] cider really is.

RB: If I push you on the Irish craft industry, though. What would your view be ? Of adopting some thing like that or the barriers even...?

Interviewee_6: I don't see any barriers. The only barriers are people not wanting to do it. But again, I think if it was for the betterment of the industry and the accessibility. So, if the consumer educates themselves and then they can look to the industry giving a fairly standardised guide. And then within it, you know, it's like a tree. I suppose the tree has various tiers and you can go further out on the branches to the extremes of, say, tannic or non tannic. Then, if both consumer and industry are educated and singing off the same hymn sheet, then, you know, absolutely. I think there's... I think that would be for the betterment of the industry, as opposed to any negative. I see no negative energy, I see only positive.

RB: But you see the commercial realities and the public.

Interviewee_6: Yeah, because the industry is nothing unless the public buys it. We can... we can all make our little demi-johns of cider and if the public's not buying ...

RB: That's fair. And the next question, because I'm conscious of time, and as well, I think I have a hard stop: I have another meeting at half seven. What's your view on the attached potential that approach to tasting cetera, the systematic which attached?

Interviewee_6: So... Appearance. Clarity: clear, cloudy, opaque. Yeah. Intensity.. I get the colour; not sure that I get the intensity in appearance. You know, because I would say deep is an amber. Yeah, I certainly got ...I saw some cider that won an award recently, it was like water, it was absolutely see-through. I thought, it couldn't be cider, you know, just couldn't.. Intensity has me stumped there a little bit. Certainly, clarity, colour, appearance, you know, other, still, petulant or sparkling. Yeah, aroma, clean - that's fine. Flawed. Obviously.

RB: You know that there's a separate conversation as to 'do I have too much VA or is it an Austrian style cider' but ...yeah. Let's leave that one.

Interviewee_6: Yeah, that is. That is that! Aroma, intensity, sweetness level, dry, semi dry, semi sweet, sweet. You know, I think New Zealand winemaker was asked the secret of his dry white wine. He said sugar. Straight over the heads of most people.

RB: It's like in the wine world, say it's dry and make it off-dry. Particular areas, and obviously, this is very familiar to the WSET wine approach and it's also based on the American Cider Association their...They have something similar to this, which I wouldn't say quite as mature as this, and that's how I got introduced them because they're fed back into their system. But with the acidity, you know, there's a couple of things there. Like, on the right hand side, it's not just the level but it's also the nature of the acidity.

Interviewee_6: Acidity. I would readily admit, Richie, that my palate isn't as good as many others. Acidity is something that ties people up in knots. They don't know. People don't know acidity.

RB: And this is why I'm trying to drive [this and] the craft cider producers themselves, and everything on this page. So we got sweetness - tip of the tongue. Fine. We got acidity - and I would argue and go 'that's your cheeks - how often they run etc. You dip your head down does it refresh?'.

Tannin is, you know, the grip going around your teeth and your gums, etc. Alcohol: back your throat - does it burn ? And, you know, body is basically the weight etc. So all of those items there. The palate. Everything within the blue and white is really, the structure of the cider, and the physical reactions to it. And then there's some other observations around mineralogy. The finish: how long does that taste go on? If it's less than five seconds, short and if it's longer than 15, it's long.

Interviewee_6: Interesting. Interesting to get a time period. It has never described to me in time. I would always just take a [estimate] and I've never timed them... but I would certainly, you know, we would sample ciders here and others ciders and say 'yeah, lovely finish'. And, you know, it was never time, and you'd nearly get consensus on that.

RB: That's what I'm sort of coming from the wine world, from the WSET training which I did. I don't call them tricks because they are not - it's actually how you measure them. So, you may have a 15 second finish, which sort of changes after you've swallowed and it goes up and down in waves, but it the 'how long is it?'. And then coming down to... and I will talk about complexity, as well, in a couple seconds because that's how many flavours ? For use of a better word. And the key thing is on the palate, we have a structure with physical reactions. This is how the cider is built. We haven't really been talking about 'oh it tastes of elderflower' or whatever it may happen to take up. You know. This is all structural. Now, when you taste it, there's obviously been a question of: is it balanced? Is there balance of the acidity and the tannin? You know. Tannin and

the alcohol ? Is there a burn? Is something out here ? Yeah, the intensity and then the other factors that go on. If you have something which is balanced and it's, it's long or to medium plus in its length and its intense or medium plus and it's complex. Four tick boxes there. One balanced. You give a reason for that, but then you go to the others. Think of it. Three other ticks. If you're going to have something here with four ticks, if somebody was to go 'what's your opinion' and its only an opinion, it's not a fact but what is one's opinion as to the quality, one could go and give it the top notch which happens to be 'outstanding' standard, because it's balanced, acidity and tannin or flavour intense, because it's long because it's intense because it's high intense, high complexity.

Interviewee_6: Yeah. Yeah, I look. I see these things as as tending to be something to base competition on. And competition, always inspires better product and more, you know, myself, various areas I need to improve as well. And if it gives you a template to judge or be judged. And you find, you know, a recurring theme being verbalised or pointed out about your cider, then that's, you know, is it, is it a positive or a negative? Is it a recurrent positive theme or a negative theme? What do you do about it? So I'm all for it. Yeah, absolutely. I think, as I said, as I said before, I think it... It can't bring negatives, it can only bring positives to the sector in general.

RB: But, it also has to show a positive place at the end, which is reachable as well, has to be a financial or industry up-lifting.

Interviewee_6: No it doesn't. If it improves the quality of everybody's product because it's easier to analyse everybody's, you know, even within the industry. And this is not about making gazillionaires out of each other or anything like that. But if it improves the quality of our products. And on the other hand, it improves the accessibility for purchasers. It improves the... French wine is readily considered to be certainly amongst the best in the world, and a good French wine is all of that. It tends to be very expensive, of course, compared to others, but probably the best one I've ever drank is French. But for half the price, I'd be drinking extremely good Spanish one. Well, you know, so...But if we can something, I know, it's not just Irish cider makers, but if we can get something that is the template - the structure to base yourself on and then you start to, to take out the negative parts and Irish cider as an example, starts to become seen as, you know, Irish craft

cider has really upped its quality levels. Well so - happy days. You know, then everybody goes forward. So I... there's no negatives to it, Richie, as far as I see.

RB: And if I just throw you onto page two there. The green page - this is those flavours and aromas, which were mentioned in the palate and in the aromas and the nose. I'm going to I'm going to reverse engineer this and I'm going to go to the right first. This is a column which would not normally be here in any of the wine tasting or spirits, whiskey tasting or even sake. This column, because the industry is established but parts of it... like the lexicon is not mature. Because of so many people who disagree as to style. If we look at some of those and we go, it's associated with a potential flavouring, or a potential addition. It's really a, you know, tip of the hat to something which may have been added or it just may be an aroma which has arisen from this particular type of apple during a wild ferment or commercial yeast ferment.

Interviewee_6: One of them, I'm watching here: walnut. I had one customer that bought my cider to Spain and he just kept on talking about walnut, walnut, walnuts. And when he mentioned it, I could taste the walnut, but until he mentioned it, I couldn't. Yeah, and I know, with some of these things ... they can be leading. But then, I gave the same cider to people who had never mentioned walnut before, and I asked them 'any spiciness?'. 'No'. 'Any nuttiness?'. 'Yeah, maybe'. 'What kind of nut? And then they'd isolate it and 'walnut'. Yeah. And it was just pure wild yeast ferment, no additives, no nothing, no barrel aged, no nothing. Just aged cider. You know, you get it. I think these things are... There are flavour wheels for cider, as well. There's a lot of that kind of stuff going on. I think, once you put that forward to people, just like wine, that it is possible to taste those flavours or or isolate those flavours within the palate. That it's not some, you know, excuse the expression 'wine [expletive expletive]. There is tobacco, there is leather, you know, these flavours can be there. Whilst it is a little bit suggestive, maybe, the first time around, once people appreciate that those flavours can be there, then they can identify them.

Yeah, come on from the coming from the right hand side of the column is, is an interesting reverse.

RB: Yeah, because it sort of opens up the conversation to producers, you know, who know what the difficulty in the conversation is. And then it's sort of like similar to, even go back to A.A Williams and Long Ashton and his first cider, his first aroma wheel. And, you know, that doesn't address any of the structure of the cider, there's no page one on that.

Interviewee_6: Fair enough, it's very superficial. Remember, there's only, it's one, it's one element.

RB: And you're probably wondering... Just if you happen to be wondering in the suggestions column, why I put things in bold. You know, the Nez-du-Vin type of thing ? [Interview holds up a Nez-du-Vin box].

Interviewee_6: Yeah, I've one there behind me as well.

RB: Yeah. So it was literally that trying to show the guys. If there was a level of lack of familiarity or, you know, somebody mentions trying to identify smells offhand from ... it's very difficult.

Interviewee_6: Yeah, so I got that quite a while ago and then I got the fault one as well. [A specific nez-du-vin focused on fault scents.] You have that one?

RB: Yeah.

Interviewee_6: And even within that, I can tell you that there wasn't enough of a lexicon to describe one of the ciders I made!

RB: I find some the flavours are quite artificial as well. It's like, that's, that's candied lemon, that's not lemon per se.

Interviewee_6: But it's adequate enough to give people, you know, a sense of [it]. But certainly, there are a few things that we've experienced through our time that you kind of go 'oh my god, I wish I could take my tongue out and put it through a hot wash'. Eggghhh.

RB: Within the groupings, I have two categories or levels of groupings. There is the primary fruit. And just to call it out, these are all, 'what are you encountering in the glass?'. You know, it's not saying something actually went in there, it's just the flavour or the aroma is in the glass. So, however, it's... however that flavour ended up there is not being specified. So hence, there's primary fruit and other primary crops. You know, so, a lot of herbaceous, herbal, stuff. And, and then floral. You know, hops - okay, sort of stands on its own. Everything else - could be the apple variety, could be the type of yeast, you know, some of it, you know, can be Brett [brettanomyces]. All right, well, Brett in the next one, it is in the secondary. You know, where we come down to fermentation-related as well. And then, you know, barrel-related, etc. So what's your view overall on that ?

Interviewee_6: Agh yeah - I think it's good. I think it's good. There's plenty there to... there's plenty there to really get people thinking. It's, you know... I remember the first wine tasting I was on, Richie. When somebody who had a good knowledge of wine actually explained, and I watched around. It was a small group and I watched around the room. I watch people. You know? Their eyes opening in wonder that they now were explained what they were, what they were tasting... and took the time to analyse it. Look. There's, there's... there's everything, I think, you need there, for the most part.

Of course, the elephant in the room for a lot of these things, is how do they get there? Do you know? How did those flavours get that, or how did, sometimes colours... colours get there, you know?

Thankfully. Thankfully. Craft cider makers, you know, are still of a scale and our mind, to be pretty transparent. Some of the... I just recently had a rant with my revenue control officer about some of the stuff about fruit ciders. A questionnaire came out recently. I'm kind-of going, you know, 'would you ever stop this muck from not coming in, and not paying enough tax?'. The

difference between a craft cider maker.... he's not... A craft cider maker, making a mixed fruit cider is not at the level of alco-pops. You know? It should be allowed to get to a place in the market without excessive duty. I'm in the craft cider business because I like to see craft cider coming from fruit, as opposed to essences or any of that other gunk, because there's plenty of that going on. This...It's a very good document.

RB: Without the ingredients being put on the label either?

Interviewee_6: It's savage. It's savage. Years ago, I was at a show. I was buying a bottling line. I was early for the appointment and I went to a company, flavours company called [Doler?]. We just had time and I wanted to go and see what flavours were coming forward and a very funny, big, Austrian fella... he was about six foot four, big, big man. He said to me 'what do you do?'. I said 'cider' and he said 'will you make me cider - cheap as chips?'. Which... A big Austrian coming out with a real English expression, I thought. I said 'How, how will you make the cider?' and he said 'but you know this already!'. And I said, 'Yeah'. He said 'we get a load of water, a load of sugar, and we will ferment the hell out of it. And then we'll add some apple essence'. And I said 'yeah'. But he said, 'cheap as chips - 20,000 litres delivered to you'.

RB: Heartbreaking, heartbreaking.

Interviewee_6: Heartbreaking. But the wine industry is full of that too. You know? They'll deny it, but it's all there in the wine industry. Cheap wine is chemical. It's just like this. It was just exactly like that... so... dirty industry. Thankfully the craft guys are, still, mostly above that, but the industrial guys are not.

RB: I'm conscious of time. I'm going to ask the questions. They, they may or may not apply. And would you consider using a structured template during a cider mill tour? Because this is, again, just engagement with the public.

Interviewee_6: It's education of the public. Yeah, and if you did it in writing - it's education for the cider producer too. [Laughter].

RB: I'll come back to that. That's my last question to come back to, to be honesty [joint laughter].

Do you think it would change or influence that the tourists' experience?

Interviewee_6: Yeah, positively. Yeah.

RB: Okay. This is a particular one, it's a two fold question. Again, it's a repeat. What are the industry barriers, whether it's real or perceived to adopting such a tasting approach, generally, and then, part two is, on cidery tours? and, I've a particular interest in that first half of that.

Interviewee_6: Industry barriers, real or perceived...Richie, I don't know that I have an adequate answer.

I suppose, some people might be... Some people might be afraid [that] they're found out as being exactly the same as the guy next door. Perhaps. Some people can be afraid that in educating the customer, you're, maybe, showing them the faults in your own cider. I suppose that's it. I suppose, so what's the barrier? The barrier? The barrier is fear.

Barrier is fear. I think that, that all of a sudden you're not special. So somebody buys into my brand or Stonewell or whatever else. But yet, they find out that Stonewell's medium cider is... is, you know, by all accounts, exactly the same as Longway's medium cider. But then, there may not be brand loyalty anymore. Perhaps. I don't, I don't know. I'm not afraid of it for all my faults and for all my ciders faults, I'm not afraid of it. I'd be happy to do it because, I think it'll actually improve what I do and what the industry does. So that's, that's what I feel. I think, maybe...maybe fear... maybe fear. Maybe fear that somebody might, instead of just necking a bottle of cider, might actually analyse it and decide they like something else. I don't know.

RB: On the upside ?

Interviewee_6: Again I go back to the upside - is a better educated consumer and better educated industry. Information tends to make a better product that lifts an industry. It's why motor racing has made cars safer. The pursuit of speed, it has bought better engineering. Better software has made cars better. And in this regard, this kind of competition, and therefore information-return will make everybody's experience better, I think, in the, in the long term. I don't know if I... if I'm inline with what other people are thinking are! Maybe not.

RB: No - that's good.

Interviewee_6: Maybe it's not important to be inline with what other people are thinking.

RB: I'm thinking I shouldn't give you, I shouldn't give you the answer to that in case it influences a decision on another answer!

Interviewee_6: I shouldn't have asked!

RB: We'll take about that after! [Laughter].

Interviewee_6: You're the interviewer - you're asking the questions.

RB: And so... I think you've actually answered the next one which is 'what are the beneficial outcomes?' Question 14, there was, you know, enhancing a visitor experience, which you've answered as well. Number 15 is 'how do you see the confusion as to the general cider language or lexicon around styles, being resolved?'.

Interviewee_6: With great difficulties is the short answer, but... Now, Richie, you're more involved in the transatlantic view of it. Obviously, coming from the wine education that you have, which is probably more seen as European. I think, within Europe, we could probably develop styles and criteria that everybody would, would go by... I think, again... I think the American market is so...The people that want zero residual sugar ciders, they're getting this paint stripper. I'm thinking 'how can you enjoy that?'. You know? Don't be afraid to enjoy yourself every now and again. If you're going to have a drink, you know, and if it's nicer because it's just a little bit sweeter, well then, you know, be good to yourself. Oh, I just, it's...it is so American, that they can be so Puritan and at the same time so... it's so diverse. I think they don't, and this is only my opinion, I think they don't know what cider is, and they don't know what they want out of cider, and they

have to figure that out for themselves - yet, it's so young to them. And it's unlikely that their styles will be commensurate with European styles. My recollection is a few years ago, somebody, some of the vanguards in the States, kind of said, 'you know, anything that has malolactic fermentation is inferior'. You know? And people were reacting to that. And that was seemed to be a bad thing.

Whereas most European makers tend to appreciate an aged cider. Inevitably, a malolactic [fermentation], not always of course, malolactic [fermentation] will often have occurred. So, the confusion to the lexicon, I think, and it's a macro thing, I think there's probably an 'us and them', a transatlantic [thing]. A lot of it will be similar - tasting notes and that. But styles? I think that could be it. It'll just need work and, as with all things, somebody needs to be respected, educated and then be prescriptive. Tell the industry, you know, "Y'all respect me. Y'all know, I know cider. This is it". You know with the research you've done. Because it's a talking shop after that. It will go on and on and on. You know how these things are. Somebody that can command their respect as well, and after being educated, with no dog in the fight, with no agenda, with the information and then prescribe, and say 'look this is it'.

RB: Interesting. Okay. And I'm just conscious of time here. And I might reach it out to you on another occasion, if there's more, if I have any more questions. Do you mind if I did? So that was a request as opposed to a statement!

Interviewee_6: Yeah, yeah, yeah. [laughter]. Richie, not a problem. And apologies, it took so long to get to this point, but not not a problem. It's only... you're only getting one man's view: half of it's wrong, half of it's right, on a good day. So, you know, again, at least, the thing is that you're talking to the others. And, you know, certainly some of them are commercially much more successful than me, so is that a good thing or a bad thing for your purposes? You know, I'm more successful than some of the other ones commercially. Is that a good thing or a bad thing? But it's all part of the equation as to what the industry is and what people generally, I suppose. Because, you know, something I'm doing must be right for enough people to keep the doors open, if you know what I mean.

RB: Yeah.

Interviewee_6: And yet, I've made plenty of horrendous mistakes. So in there... There's some learnings to be had, I suppose. Look, you're talking to.. I'm sure...I don't, I obviously don't know, but I'm sure you're talking to all the principal players in the Irish craft sector and I'm sure, knowing most of them, I'm sure they're all generous with their time, giving you a truthful view on it, I think. I don't think anybody in this type of instance will be behind the door or recalcitrant. I just think it's, it's for the benefit of the industry. And I think what you're doing can only bring positives.

RB: Hopefully so. Hopefully so. Listen, thanks for your time. Really appreciate it. Unfortunately this COVID thing... As I said last year, I didn't get a chance to actually talk to you in person up in your place.

Interviewee_6: There'll be time to come. There'll be time to come and you're not a million miles away. In the future, you know, one of our open days or sometime, you're just passing, drop in.

[Interview brought to a close].

Interview Seven

Date: Wednesday 24th February 2021, 4:00pm.

Online, Zoom.

RB: [Introduction] ...and you're aware of the questions I'm going to ask as well, and the consent form. Okay. And what's your understanding of the public's knowledge as to the different styles of cider, and by that I mean like Spanish, French, West Country English etc?

Interviewee_7: The public... I'll be awkward here, what are we defining the public as ? Geographically and demographically?

RB: We are saying the Irish public, the Irish public of whom some people may or may not drink cider.

Interviewee_7: I would say the awareness, in that case, would be limited to non-existence.

RB: Do you think there's an Irish style of cider ?

Interviewee_7: Not a designed style of cider. There is a default style of cider. Standard. So, there's two styles of cider and speak from someone who... You know, in the pre-making cider context, versus the post-making made cider context. There is an overall style of cider which is called Bulmers, which is permeated the consciousness of what cider is and it's universal in that sense, and alternative ciders would be seen as cheaper ciders, or other industrial ciders such as Orchard Thieves. So, you have Bulmers which is the [air quotes] "expensive" cider, and you have the, you know, Linden Village or whatever the cheaper forms of cider would be. By default, that has effectively been the Irish cider and in practical terms, the consumption of that cider is, per capita, the highest in the world. But, that's would be what people would think are cider, and effectively it is. If you were to take a view on consumption, defining what a product actually is, in terms of craft cider, which is a very small portion of the market, I would say there are very limited numbers of actual, craft producers. There are, of the craft cider producers in Ireland, there's probably ... a lot of it have derived from apple growing backgrounds so they're growing of apples has led to the production of cider from those apples, which is a second... not secondary... but it's that the cider production has evolved from a primary focus, which is the growing of fruit. In terms, then, of the

even smaller sub-category of people who've got into the production of cider, in order to produce cider of a higher quality or of a uniquely Irish focus, it's a very, very, small number of producers... [Connection issue. Re-establish connection.]

Interviewee_7: Okay. So back. Back to the craft cider question. We're probably in the early, developing an Irish style. Its revolving, unfortunately, around the idea of cider with ice. And, you know, the bulk of the producers are in that. I can name a few. I I think Mark and Davey and James and ... James and Liam are both working together, and would probably be the people who have focused more on the cider as, as a drink and to try make a unique style, to do more creative things with cider. And Daniel would be one of the people who is out at the start to do creative, an apple-juice based drink. Although, he probably more commercially aligned because, you know, ultimately he's got got a large volume of stuff to be putting out there.

So, it's in the evolution of some of the stuff we're putting out, and I'm finding, I'm getting more inbound interest from people interested in learning about cider - saying 'Oh, I'm interested in starting to make cider. What apples should I use?'. And so, there is the start, probably, of a craft cider movement. And certainly, some people over the last 10 years have tried it and they've kind of come and gone, and there have been various other producers who tried to do it. But cider as a... as a means to generate income, in its current incarnation, it's not necessarily the most opportunistic business move.

RB: I see from yourselves ...you've quite a variety as ciders and perry, in all fairness.

Interviewee_7: Well, yeah. I mean I'm, to some extent, sub-dividing. Cider, in the sense of cider at the perception - the public's perception - of what craft cider is... is 500 mil, fizzy bottles, just like beer, you put ice in it. What we're making, and make a conscious effort to do, what we've tried to do is to distance ourselves from the perception of cider - by using words, which the EU may not be fond of like, apple wine, apple port, perry which we're kind of pitching as an Irish pear Prosecco and trying to break the glass ceiling of what people feel things are.

RB: And you guys also have quite a...You talk about Irish style. People within the craft industry itself, because within the industry itself, a lot of it, is driven by, you know acid-forward Bramley.

There is some Dabinett, Michelin where you started going ‘okay, now I’m getting into more classical cider apples’, but that’s, you know...Dabinett is the driver of craft cider in Ireland, and there’s only a limited quantity. And I know Olan is doing Kathy as a single variety. There’s lots of different... I don’t want to say ‘variations’ because that’s a very Gabe Cook type of word... he’s trying to do it as well. But there’s quite a lot of strands, if I could say strands on the journey which are happening at the moment, and it’s trying to go ‘Is there a number of Irish craft cider styles?’ If I can use that word, emerging at the moment?’. ‘Cos Daniel has tawny and everything.

Interviewee_7: Yeah. So there is that, and it is driven by the apples, to some extent. And the apples that have been planted, for the most part, are limited in what was contractually of interest to Bulmers. So, James... We get apples off James as well, Dabinetts, Michelin’s... We’ve got 140 different varieties of apples, of which two are Dabinetts and Michelins. But, they are, largely speaking, the workhorse of both the English and the Irish industry. So even, you know, fairly niche producers like ‘Little Pomona’ in the UK, still the bulk of what they’re putting in bottles, regardless of the different processes, is going to be Dabinett and Michelin because they’re a good performing apples. What we’d like to see... and you know, the other apple you mentioned there, Katie, is probably the predominant non-cider variety that’s used in apples. And some people are trying to do stuff with Discovery. I know James, and there’s another chap in Cork, does stuff with Golden Delicious which is actually surprisingly nice. And it’s kind of limited by what they’re making. So most cider makers probably use things like Dabinett, Michelin, Jonagold, a bit of Katie where they can find it, Jonathan Red - and that’s what’s frustrating their cider making. And people are trying to make it in slightly different styles.

Most people are still using cultured yeast. Mainly, you know, moderate maturation times. But... Longueville would be another one that, you know, they planted their own orchards and they use natural fermentation, like ourselves. So, we start using cultured yeast our first year or two. Then we did... just started leaving stuff go wild. We were using windfalls. Just let it go wild and see what happens. We found there was a lot more complexity in it. And part of that is due to the fact that the yeast that are wild are, largely speaking, evolved to function in our environment. We only have ambient temperature production. So if you’re using a cultured yeast at 15 degrees, it doesn’t

perform well and you start getting H₂S and you have to stick nutrients in it. So we, literally, press it and leave it and then it does its thing. The key, at the end, is blending.

RB: What do you do for your ice cider?

Interviewee_7: That's more nuanced. So, that is a process where we're concentrating upward juice, before we ferment it. And we're using racking to slow [it] down. Again, [with] limited equipment.

RB: So it's like cryo-extraction? But the yeast you're using there, is that a culture yeast?

Interviewee_7: We've tried both. What we're doing at the moment is a blend. So, we're... in order to try and get an optimal alcohol balance, we've used cultured yeasts. In the past... we probably making that five years now... and one year, the cultured yeast just didn't make it all the way. It struggled and died. We ended up with a higher concentration. Then we had to, separately, wild ferment another batch. And what we've kind of done is, we've evolved to a couple of different cultures to ensure that we have the blend profile that will allow us to have the optimal blend. But again, the challenge with that is stopping it, sometimes. Like a couple years ago was warm, we had stopped, just through racking and filtering, and then it kicked off again because it was a warm temperature and, you know, suddenly it was 'aagggghhhh', trying to fine and filter and all sorts of stuff. Then, with our pommeau which is the apple port, where we're using Apple brandy and our juice. So that's, obviously - it doesn't ferment it all. We have a partial ferment and, maybe, might use a little bit ice wine and that, to create complexity. So like ... Where I think the tawny, Daniel is just chaptalizing juice, then just adding hops at the endpoint to create bitterness.

RB: It's gas [funny] isn't it? The hops at the end!

Interviewee_7: Yeah, well... I mean, look by the nature of the process. I think it's a good way to create that kind of profile, when using slightly different apples and a different basis. But I think all of that being the case, there is now... even this year, there are two people who have land, who contacted me and said 'look, we really liked this idea of the Irish vineyards, or the winery of cidery that you guys are kind of doing, and we'd like to do that too'. And they're using some old apple that they found and they're planting new orchards and looking at getting varieties from the UK and so on.

What we've always kind of tried to say is that apples and pears are the Irish grape, and they have a 1000 year history of making cider and Mark is probably the man there, he knows more about Irish history than anyone else. And to try and... again, is the same thing in the UK... trying to extol the virtues of that fruit, and what it can do. But, it comes down to treating it with some respect, and apples haven't been treated with respect. They've been kind of 'let's get concentrate and that's the same as fruit', and it's not. A 30% blend, a 35% requirement - like, Bulmers is not the worst, they actually use apples. When you look at some of the Heineken stuff! They're using concentrate to fulfil their 35%, and that 35% is fulfilled by a smaller amount of concentrates. So, they might be getting 50% concentrates are effective actually juice content is only 17% ! So you know, that's a different drink.

And one of the choices we made at the start was [that] we didn't want to go around this 'oh, look at them they're making alco-pops'. That's not our place. If the customer is happy with that product, that's fine. We're making a different product for a different market, and because of that we're, kind of, trying to say 'right, this is what we're doing and we're using 100% fruit, and this is what comes out the other end, and it tastes different'. It doesn't necessarily appeal to everyone in terms of the price point. But, what we hear most often is 'I don't like cider but I like this' or in terms of the ice wine or the pommeau - 'Oh my god, what is that? I've never tasted something that could before!'. And, you know, we're in the Terroir [shop] is in Dublin, have sent some of our product off to the French 'vin society', or whatever, for them to taste this, as a representation of what Irish wine-making could be or the products that can be made when apples are given that status. And France have the same challenge in that, you know, they have disregarded the validity of cider and you have people like Eric Bourdelet and Cyril Zangs and some of these guys trying to say 'lads, come on!'.

RB: And Eric the ex-sommelier etc etc.

Interviewee_7: Yeah. Yeah, exactly. So, and that's quite a bit. So, I think that with some of the people who are involved in cider production now, are creating this proto-template of a range of things that could... the directions it could go! And craft beer has taken hold slightly later in Ireland than a lot of countries and five years ago a friend of mine has a Twitter handle 'a 100 Irish beers' - thinking it would never get to 100. He gave up after 300 [indistinguishable], 'I'm gonna have to

stick a zero on that'. And at the time, there was nothing. Maybe, O'Haras were doing a few beers and you had the Porterhouse. It's the same with distilleries and cider [in Ireland] hasn't gotten to that stage yet, but it's already happening in England.

RB: It's, it's actually ...you're jumping into the next area where I'm going, because... If I bring it back just a little bit. What's your understanding of the public's perception of when to drink cider? Because it's a related question.

Interviewee_7: Yeah, it is. It's a summer drink that you put ice in.

RB: What is your view as to the cider markets positioning relative to other drinks, such as white wine or different beer styles?

Interviewee_7: I would think it would be seen as a ... In the beer category for people who don't like beer, or in the teen category for people who don't like alcohol and want to get drunk.

RB: Interesting. You didn't say anything about white wine there.

Interviewee_7: For people who like white wine and want to be less drunk, possibly. Or want to have a lighter drink. I'm taking, again, a broad sweep of what the general market, what I feel the general, largely market is. The people who enjoy cider will enjoy cider in a slightly different way, probably treating as a little bit more like a wine with dinner. That's, maybe, aspirational for us as cider makers to try and get people to look at it like that but I think in general, that's probably not the case.

RB: Okay. Let's talk about that aspiration in a couple of steps. Do you offer, and I'm gonna call it cider mill tour, do you do tours?

Interviewee_7: It's something that we'd like to do. We have done tours informally. We have had wine clubs and so on. And we would like to do it but you know it's probably the next stage. I'd say it's something that we'll make look at next year. It is, I think, it is really, especially for us, that we're almost like a cellar-door type thing. We're near to Cobh, there's tours [from there]. But it does require investment in general. Welfare facilities and upgrading some of our stuff. Like us, a lot of cider-makers, we will use IBCs [intermediate bulk containers] to ferment. We use stainless tank for the wine and will use whiskey casks for our pommeau. So, some of that is more attractive

than others! Your orchard is lovely. The view is lovely. A bunch of IBC that are in a room is probably less attractive. But, you know, the products taste very good and speaks for itself. So there's a little bit of a nuancing around how we present a tour and staffing and all that sort of stuff but we would like to! Yeah.

RB: Fair enough. What is your view on adopting a structured, templated system - a systematic approach - to tasting cider, similar to the approaches in wine, spirits, sake etc?

Interviewee_7: It makes... it makes sense. The language isn't necessarily there yet. You know, I guess a lot of wine drinkers are themselves not familiar with the language of wine. So the establishment of a language does not, is not, the same as ensuring everyone is educated or appreciates what that language means. But not even having a language is, is, is even more challenging!

RB: So let's limit it, a little bit. What's your view to adopting it and to craft cider-makers, in Ireland, amongst themselves adopting it?

Interviewee_7: I'm a contrarian by nature so I, sometimes, find that the restrictions, not in a bad way, but the self imposed restrictions associated with GIs and AoCs and labelling - create, itself, a limit. So, the people who were there now... so for us to say 'this is the language you must use': the next generation of cider-makers, then, become limited by that language that we, in our own overlook, has imposed upon them. France is an example of 'how it's being left behind' because of its self-imposed structures around how things are and how they should be.

RB: Let me challenge that a little bit. Okay?

'Cos I actually accept what you're saying about the AoCs and the DoCs and dynamism, and [what] we're particularly asking is, and I know I sent you an example of that, is about a systematic approach... And it's not about the style. And it's not about 'here's what went into the cider', whether it's additives or not, or co-ferments or post-fermentation. It's not about the varieties of apples which went in.

It's part of, potentially, the lexicon but it's like... if it's a five step journey, this is about the first three steps. Step one - blind tasting a cider and the glass. What questions are you going to ask ? What order you're going to ask them, and what words, suggestive words, are you going to use to answer those? And we'll step through it in a sec, it's easier to get it then. And if one goes, every time, every member of the industry as a cider maker, if I'm tasting somebody else's cider... We're going to take the same structure, same system, same methods of structure words, etc, to taste what is blind in the glass. I don't know, I have no idea, what the... what the residual sugar is. I'm not being told. I'm going to systematically taste this and get my perception of what's in the glass, and that perception becomes a profile and going 'well the profile of cider is x, it looks like this'. If I'm tasting 20 ciders. If 8 of them, or 12 of them, have an extremely similar profile, then you sort of grouped them together. And that's step three. I'm not touching on step four, or five which goes 'well, what's the name of the group?' Or 'what are the rules?'. Whether it's production methods or geographical, because that's step five and that leads you to step six, which is protection and PGI and all of that.

No, no. It's just a systematic approach to tasting what's in the glass, same way, same questions, every time.

Interviewee_7: Yeah. I mean, that's makes sense. In that, an understanding of how to proceed, what you're drinking, makes sense and, I mean, the language to describe it in. I think it's good, I think, like... for example, sweet is such an ambiguous term that it is quantitative in its usage, but it's deceptive in its 'how it feels'. So, you said, one of our ciders are medium. Sorry, medium-dry. but because they're high tannic, they taste drier than less sweet ciders. So you're actually...you know... that's why at the start, we kept away from using the words 'medium dry sweet' on the bottom because it doesn't make any sense.

RB: I agree. And the acidity - if you have really high acidity, it'll hide this. Or, if you've really high sweetness, the acidity is going to be hidden for a while, and it's only after 10 seconds or so that it will begin to come out.

Interviewee_7: Yeah, the acidity at the end.

RB: And the tannin... I'd a good one with Gabe Cook, talking about this as well. There's a nature to tannin as well. So it's a level - high, medium, low, whatever. But it's also 'is it drying tannin?', or is it 'fine, smooth?' etc. And because with sweetness, everybody also uses the word dry to represent sweetness, it's....there's challenges there. As a polite way of putting it. With that in mind, and looking for feedback, do you want to go through, give an overview as to your thoughts as to the systematic?

Interviewee_7: Yeah. So that... is that the blue or the green?

RB: It's actually both. Okay, so... first page structure and the second page is about flavours and aromas within that.

Interviewee_7: Yeah. Okay. So... so if we want to start with the structure. The three things. I mean that's quite systematic and your appearance, your aroma, your palate, and finish. Yes, so that makes sense. With the clarity, clear, opaque... do you want to go through the different items or what way ?

RB: You can just sort of skip through it!

Interviewee_7: Pink, red, purple, colour. Yeah, so it's good to say the actual a degree of sparkling because it does change. Aroma. Condition. Clean. Flawed. Okay, that's, yeah... it's one of the things that I would say with flawed is that's a term which a wild ferment, for someone who's not used to it, may describe as flawed but that's, like...

RB: And an Asturian cider. Someones going to get loads of VA on that and go 'that's flawed' and actually 'no'. And that's where... I'm going to jump you down the page a little bit. When you come to the conclusion, and it's a perception of, their own opinions or an opinion as to the quality, you can go - it's faulty, it's drinkable, good, very good or outstanding. And the question is, 'well, how would you rate those, Richie?' There's five spots. So obviously if it's faulty, it's faulty. But if you look at balance, you've got to give a reason for the balance and you're going 'is there a balance between the sweetness and the acidity?' Or, is this just ripping the mouth off me ? You know, the acidity is far too much - it's not balanced.

And that's an opinion as to balance. Whereas too many people make an acid-forward, or an acid-dominant cider, and then afterwards go 'oh yeah it's an Asturian style', as opposed to, with the Asturian, it is actually going to be balanced. Right, it's going to be 1.5 grams of acidity per litre or higher... or is that Basque? One of the two of them. I think ... yeah, its Asturian and then Basque is 1.8. And, you know, it's still gonna be balanced with flavour.

And then, on the other factors, it's 'what is the length?' And obviously, the length is part of the palate. But if you have something which is a medium plus or a long length... So the taste goes on for 15-20 seconds, becomes 'yeah that's good', that's another tick. Now, two ticks. And the intensity. You know, there's an intense medium plus or pronounced intensity. That's lovely. Another tick. And if it's complex, there's lots going on, it's not just 'I'm getting green apples', you know, if there's lots of other flavour clusters... we'll look at us in the next page... that's complex. So you have four ticks and you're something that is outstanding. The quality is outstanding. It's not saying, you know, price or anything like that.

Interviewee_7: Yeah, yeah. I see where you're going with it. So yeah. Condition, clean, flawed. So the intensity of aroma is a thing, I mean, that can be temperature related, sometimes I do find or glass related. So it can seem intense sometimes or it can seem dull and then you leave it in the glass and suddenly you get more. And similarly, with the aroma, you can have reductive air on... Certainly perries can be seen reductive at the start but you give them 30 seconds and they're not.

The palate side. Dry, semi-dry, semi-sweet, sweet makes sense. Acidity level. Yes. Tannin level. Yeah, I mean, look, that's a bulk one. Your alcohol level. Yeah. Your body. Body is a tricky one to sometimes describe, but yeah. Characteristics again, aroma, flavours. Intensity. So you have, so your aroma intensity and your flavour intensity. Mineralogy, yeah. I think those, having those observations, prior to your subtlety on aroma makes sense because one of the defaults that I do find with Irish ciders, some large ones specifically, is acetic. Acetic notes in light ciders and it's unfortunate. There's also the, occasional, line-cleaner chemical nature that comes through large production of some craft ciders. And that metallic kind of feeling, that something can come through, which can be unfortunate. But, you know, sometimes that can be used to try and control sulphites and so on. So, having a kind of a, an observation of pronounced acidic or pronounced

whatever, volatile acidity, wherever you want to call it, pronounced minerality or, I would say in this case pronounced chemical...chemicals areas as a fault. It's just something that you'll get straight away. The thing for people who probably have some degree of familiarity with sulphites as a preservation method, again in Irish ciders, I have found this over the top, certainly in culinary apple driven Irish ciders, there is, can be, an overuse of sulphites that is noticeable to the taste. So, on the palate as kind of one of the bulk feelings, is that, as a dis-incentive or just to make cider - makers aware of the perceivable nature of sulphites, I think that's something that should be included, because people resolved to sulphites as a cure-all. And it has an effect. Something we don't use in the Irish market that I have seen in American ciders is the ... What's it called? Potassium. It's a food preservatives commonly used. Sorbate, potassium sorbate which has a kind of a geranium kind of taste to it. That is a taste that in other ciders. I've tasted it in foreign ciders, I haven't tasted it in Irish ciders. It's not something that is commonly used but certainly, the sulphites have been noticeable. And certainly ascetic and certainly line cleaner.

RB: Talking of the ascetic you can see on the right hand side there. It's actually, there's also included, the description of the nature of acidity and describing the nature of tannin and there's examples for those.

Interviewee_7: Yeah. So looking at those right. Dull, I get. Flat, yeah. The difference between the remaining ones. Sour. Sour to me would be the vinegary...

RB: I had a good conversation with Gabe Cook on this and, in, I suppose, common parlance people think of a sour that way. Whereas, actually sour is sourness of lactic acid. So it's actually quite soft. Whereas, we're naturally, from our own normal world we think of it as actually quite confrontational but it's actually quite soft. That's why I put that in there. There was a movement on it.

Interviewee_7: Yeah, yeah. This is the, I suppose, the difficulty and this is why you're probably having the question as to what is people's perception of that word. Crisp, fresh, Bright. Racing. I'm not sure how I would understand that myself.

RB: So, let's say you have a Riesling wine, pronounced for high acidity and your cheeks just race for quite an amount of time... so that's racing.

Interviewee_7: Agh! I see. I see. That makes sense. Bright, vibrant, fresh. So sour is effectively the lowest of them... and racing, which actually now that you've described it as actually a great description, is the highest.

RB: Vinegary stands on its own, because it's nearly going 'the VA or so, it's too much ... it's too...'

Interviewee_7: I would say that, possibly, dull and flat is probably the same thing. You can probably group them. Fresh and bright, it's probably the same. Sour and crisp, I think, you probably have right. There's a subtlety there that you're probably raising. Including racing is an interesting one to have, as in your mouth is... The only thing, and I don't know if this, this might mix up some of the aroma and taste notes, is that people will understand the sour stuff as sour as being citric. That in itself is a flavour, I guess. But if you were to say something is 'citric-y' sour or something, you'd go 'Oh yeah, I know that sour'.

RB: That's a lovely segue to page two.

Interviewee_7: Yeah. Just looking at the tannins there. Fine, smooth, gentle. Fine. That could be misperceived as being good. Smooth, gentle. Drying and astringent is definitely something. Having descriptors, and maybe this is the point on the racing, is that you've got astringent with black tea there to describe it. Maybe the racing is where the citric or lemon comes in. Puckering is, that kind of teeth thing, which is very good. And bitter and coarse which definitely a thing. I would probably use the word soft, rather than smooth in there. I certainly... in tannins being soft, subtle, smooth and soft is probably similar but...

RB: The 'fine' is probably my wine background kicking back in because I'm thinking of French barrels, which are fine, as opposed to American which is more, you know, coconut or looser grained. So, it's fine grains, really what I'm...

Interviewee_7: Yeah. I mean, look. The thing with with cannons [?] and cider is that you do have these two different components in apples and pears. There's the drying tannins and the astringent tannins. And there are the bitter, and the drying, I guess. And they're kind of in... They're less wood driven, so it's ... there's some degree of barrel ageing going on inside but less so, the tannins

are coming from the apples themselves. And your Dabinets would have... can be quite voracious in it but they wouldn't be the worst of them. I don't know if you've tried [un-recognised apple variety] or [un-recognised] bitter apples and literally the juice tastes like, you know the Irish expression 'sucking diesel'. Jesus, it's mad stuff altogether. On the aroma and flavours side of things...

RB: And let me, let me give an intro to this, because I reverse-engineer the introduction to this. I'm very conscious of in the States and other places, there's big debates over what a style is, as opposed to, you know, traditional cider, modern cider, heritage, all of that type of stuff. Also, I'm very conscious of the taxonomy of what is cider. If you add something after fermentation is it cider? If you co-ferment, is it cider or cider with ? So, I'm conscious of all of those things and conscious of it's really difficult debate for the industry to get to the end of.

So with that in mind, and again, going back to step one. This is just approaching the glass. You have no idea how it's made. What is the glass? Create that profile. So, the associations on the right hand side is going 'look, if you get certain flavours - potentially this is flavoured, or the fruit has been added. But it's not saying that it has been. You may get some of these flavours from fermentation from the apple varieties. And so, it's like tipping the hat to all of that first and recognise that that's there. And now, trying to focus everybody to go 'okay, what are the flavours and the aromas?' and going, 'what are the groupings of those?'. So, primary flavours etc. What are you experiencing in the glass? A cluster of those? Green fruit, and then suggesting within green fruit, there are certain items which you may commonly use... and this is... the common words here are...

I've obviously gone through a lot of the literature and the books and the tasting notes to try and combine a lot of these. If you're wondering why some of them are in bold, it's because they're the ones which... you know nez-du-vin ? The ...emmmm [shows the interviewer's nez-du-vin box on screen]. You know the boxes for smelling?

Interviewee_7: Agh yeah. I've seen them. Okay.

RB: Yeah. So, the guys were asking about that because they weren't familiar with some smells. And I was going 'well actually, you can get one of these and here are the ones which are in it'. So that's why that's in bold if you're wondering.

Interviewee_7: That's interesting, actually. Where do you get that or what the ... ?

RB: You can get it on the Net. You get it on Amazon. I can pop you the link actually.

Interviewee_7: Do actually. I'd be keen. I did a course a while back on faults in beer and wine, just to identify them. And, you know, once you've got that, you know, the ... like [Butyric acid], which is described, lovingly, as baby sick.

RB: Yeah. Vomit.

Interviewee_7: Once you get it, you kind of remember it. Or the corn one or whatever.

RB: I'll forward you the link for that, it'll actually be from Amazon Germany, just to avoid any of the Brexit importation stuff.

And you're talking about citrus fruit. It's like primary fruit, I'm getting a primary fruit, just in smell flavour. It's citrus. It's... and then you're suggesting lemon, lime, grapefruit etc. And it's trying to group and suggest those clusters. And say 'what is the group?' and as you approach the glass, think, am I getting primary fruit? Is it green fruit? No. Is it citrus ? Yes. Am I getting anything stone fruit or tropical? Now, am I... what about other primary crops, not necessarily fruit? Am I getting anything herbaceous, herbal, floral? And then, hops and honestly, hops is flavoured or additions because it's not a natural flavour in there.

And then is a really interesting side is the whole second grouping of secondary. Thinking what fermentation flavours could I be getting? And this is your black tea, earthy, smoky bacon ... your... I don't want to call it West Coast brett type of flavours [brettanomyces yeast produces specific flavours and aromas] but they're quite unique to say the least. It's asking those questions in a systematic way. Going through it.

Interviewee_7: The order of them is good. I like the order because that is... It probably makes sense to define the secondary as being like... Is it that you're calling primary and secondary, the first thing you taste and the second thing you taste? Or, because ultimately that is what happened? You really get, say, the bacon or the tea or maybe the bread, the brioche, the malolactic as a

secondary flavour. So it kind of comes on after. So that's, that's good. I commonly have seen brioche and it's something that I kind of use to describe some of our malolactic finish.

RB: Yeah, even your... sorry, I'm cutting across you here. Yesterday, according to Twitter, you guys were doing disgorgement.. So, if you guys, at that stage because you're ... because the yeast of the bottle is quite young... I know you guys have done for like 18 months before you're disgorgement. But, with champagne and things like that, it's very often, instead of bread or yeast, it's brioche - as it develops and as it ages for the 18 months. And that's where that one would be... do they call it autolysis? Which is the degeneration of yeast within the bottle. It's the autolysis flavours there.

Interviewee_7: Yeah. And, and that is something that I know. So, [?] bacon is a good one, acetone or nail vanishes is helpful. Bread, toast. Yeah. Butter. That butteriness from malolactic again for me, yeah. Definitely is strong and it's good to have that. Wood, vanilla, cloves. Yes. Yeah, smoke. I mean there's a peatiness that can come. But, I think it's probably primarily fermentation driven. Certainly with Dabinett, you get a lot of peat. Actually that reminds me there's another one there on the front - maybe you have this somewhere else is that ...tangerine peel is something that we see a lot of. You kind of have, I suppose, that in the citrus. It's in the description of the citrus, how it's delivered with cider. It's the peel of the fruit. It tends to be become, because it kind of crosses with the tannins and you have that dryness... So, I don't know does that fit in there ? Maybe the perception of orange is that it's orange juice, when really it's an orange peel perception.

RB: And I think I've dried fruit here somewhere as well. And I've aged dry fruit. Okay so, the peel. That's an interesting.

Interviewee_7: Yeah. The sherry here. There's a funny thing here with the rise of natural wine, is that, one of the common fallacies, you'd hear with natural wines - 'it tastes cidery'. And ironically, that cideryness is good in cider, but probably less good in natural wine. It's kind of a nature of some of your wild yeasts. The converse of that is the sherryiness sometimes you can get with slightly higher strength ciders, its because there is a little too much oxidation, it hasn't gone far enough to be acetic but there is that sherryiness which can be alright. But a nuttiness.

RB: It's kind of [like] Oloroso Sherry.

Interviewee_7: Yeah. That's dead on.

The almonds, hazelnuts. The almonds - yeah. Where I have I tasted that ? Perries, very common in perries. When processing perries, in terms of shredding them the pips are more dominant. You don't get as much in cider or it fades. You get it with young cider into the first couple of months of ferment, you get that almond. But the almond persists in perries a lot longer. And it can be quite noticeable, and in a positive way.... not that you can tell people [that] almonds means cyanide [laughter].

Coffee and chocolate - massively in the pommeau. There was one that was just so coffee and chocolate last year. Mushroom, yeah. Definitely. We found that from aged ciders. Yeah, I did a... last year's ice wine... We have a barrel-aged one of them and it came over like koji. I don't know if you're familiar with koji? It's a like it's a precursor to miso. But it's a using [indistinguishable]. It's how you make saki. Just from being in the barrel and in the damp atmosphere, took on this lovely mushroom. It was very bitter-sweet. It was... we do different barrels of different blends for the ice wine... some being bitter sweets, some being deserts and blend them both. A pure bitter-sweet which would be low acidity in the barrel, and it just took this lovely earthy, mushroom, mushroom air. With mushroom... oh you have earthy up there, all right. I probably, I mean, to me that's probably arbitrary - earthy, earthy and mushroom being together, maybe earthy and smoky bacon or farmyard.

With regards to smoke....I find, again, that most of that smoke can come from the fermentation. Less smoky bacon, which does exist... Smoky bacon tends to be, I would consider, a bit more faulty whereas that, going back to the Dabinett... There's a lot ... you can get a peaty from Dabinett that you won't get or from other bitter-sweets. There's another one called Major. There's one called Brown's Apple, and all these give you this combination of barnyard, and peat, and you get this tangerine peel kind of feel from from them as well.

[Discussion as to other apple types from Long Ashton Research Centre.]

RB: That's great feedback much appreciate that.

Interviewee_7: There's an evolution in tasting. When I started actually tasting cider, I didn't really pick up a lot of it. But you know, the more that I kind of tasted a wider variety of ciders and really, the stages of our own ciders developing, stuff starts to leap out. And it's obviously, you know, you're practicing something and then your brain kind of chucks out 'oh, this is like that'... and so I'm doing a barrel-aged perry at the moment, in grain whiskey barrels. And there's, kind of, an interesting interaction between the floral nature of the grain whiskey and the perry. But after having it, straightaway, it tastes like 'well that's kind of very Sauvignon Blanc' kind of taste off it. A hint of buttery, chardonnay thing. My wine lexicon wouldn't be great, but some of the notes that I'd associate with that wine, kind of, made it very clear, almost immediately, that this is a better flat perry, than it would be a sparkling perry. So I did the sparkling test on it and it just didn't work. So... a fizzy Sauvignon Blanc, is not... it isn't the optimal way to be tasting what was in it. But, I wouldn't necessarily have had the language to describe it. But no, I think this is good. Some of the input there might be might be helpful in terms of cider.

So, have you been tasting a lot of ciders to derive this or is it, kind of, just based on literature?

RB: This is.... because I came from the WSET world. Yes, the WSET diploma... I would have been familiar with the approach within wine and spirits. I then would have looked up the American Cider Association, what they're trying to do, and I fed back to Darlene a couple of suggestions, anyway. I then obviously went through a lot of the books and the tasting notes to go 'actually what are the common things here'. And then, a lot of it is, just sort of, recognition of the process of tasting, if that makes sense. It is - how does...if we group things...the groupings of flavour.... is approaching it in that manner. Once you are familiar with the method, it's then a lot easier to taste things in a detailed manner. It's repeatable, it's structured.

Interviewee_7: That makes sense. Yeah.

And in terms of the utilisation of these? In that, because sometimes we would try and condense the description of our vintage, because everything we do is vintage based, and there is variation year to year, so we try and kind of bring out some of the main elements, and sometimes they can be competing. Like in the pommeau, we have stone fruit, the caramel. We have some of the smoky,

then we also have chocolate, you're describing something as having peach and chocolate or sorry, strawberry, there's a lot of strawberry. Actually, I didn't see strawberry there...

RB: I do, yeah, red fruit.

Interviewee_7: I'm sorry. Yeah. Potentially flavoured. Yeah. We do find strawberry in our pommeau as well. And having something that has notes of strawberry and chocolate to the eye and that's the descriptors are trying to sell it! It's accurate. It's accurate in terms of its description, but it reads awfully ! So, you know, no one wants strawberry-flavoured chocolate or chocolate-flavoured strawberries. But those notes are there, but they're in kind of harmony when you taste it rather than on the page as you're reading it.

One other thing that that I don't see here and I, we have all the time, and our ciders is a white pepper finish. I don't know where that comes in, but the closing notes of our wild fermented, just our standards cider, Johnny Fall Down, has a white pepper finish. We've done it where I've got like a... One year ago I was short bittersweet, and I had to get some from James and when I got it, it was pressed. So what I did is, added our lees from our previous year, and did some batonnage with it and left it for six months. It then took a profile that microbial kind of action that gave it white pepper finish that it didn't have when it came in the door. So, there is something to that. But interesting. If you do get the chance, I'll to send you up a bottle, but at the end of it, you'll get this kind of bit of pepper finish. I don't know where that fits in.

RB: The obvious reaction which I'm going to say here is going, yes please do! [Laughter]. I actually talked about that towards the end because it's sort of like a ...

Key question I'm gonna ask you is, what are the industry barriers, whether it's real or perceived to adopting a systematic teaching approach, such as this?

Interviewee_7: When you describe the adoption - where would that be used?

RB: So when, as cider-makers, when you're making your own ciders and when you're comparing your ciders between each other.

Interviewee_7: I wouldn't say...I wouldn't have any particular reason to not adopt something if people are reasonably standard on it. There is the subjective nature of people's perception, which may result in ... while standardisation could be, you know, chosen... What I see is brown sugar and what someone else sees is caramel, maybe two different things but the adoption of a systematic or structured approach like this, makes abundance sense.

RB: How do you think....How come nobody has done this before?

Interviewee_7: Because the drink that has been produced doesn't have any of these notes in it. You know. I mean, there's no finish to Orchard Thieves. It's not a drink that lends itself to that. So, the products that are coming out or that have been coming over the last whatever three years to five years, do have these nuances.

But this is the battle that cider has - to value itself before people, everyone else, values it.

And you know, we and a few other makers have been kind of the front saying, 'lads, we're not charging a Euro 50 for something that spends a year in a tank, that we press by hand and has spent eight years growing the trees'. You know, so, like, then...Now that these products are coming out, not just, all sorts of people are doing these high quality products. Now, there's an interest in us actually getting us to describe these products well and as cider-makers, myself included, we're learning as we're going along. So, we're learning by the production of these higher quality products, plus how to make the products better. And I know, the stuff that I put out at the start, isn't as good as what we're making now because we've learned. Better blending techniques and timing techniques and that type of stuff.

RB: I'm probably gonna miss phrase this - so apologies. It is the... I'm going to use the word 'newness'. I want to say that the craft industry is growing over the last 10 years. And it's only by that growth and that learning of knowledge itself, that it's actually getting to the stage where something such as this is useful?

Interviewee_7: Yeah. So I've seen it on the Cider Ireland communication from Liam. They're recently talking about this as a subject to discuss in the year. And I'm not ... probably I don't necessarily pretend to be the most engaged in it ... but when I talk to the lads, you know, I think this is something that is helpful, but it isn't that people have actively thought to not [*emphasis*]

have this type of thing. It's just that no one has done it for some ... for one reason and people are kind of winging it and don't necessarily have the time or the commercial motivation because most people, you know, aren't putting out products that are selling enough that someone has going back and going 'you know, we saw loads of this and it's not described well' or they're not getting necessarily customer feedback on that it should be described in such a way.

There's not that rigour or standardisation and that most people are winging it but you're starting to see in the UK and like even, you know, amateur reviewers, people having a laugh and so on... There's a couple of good podcasts, I don't know if you heard Cider Chat, or there's a good one called Neutral Cider Hotel. But their descriptors are using this type of a framework and becoming more subtle and more accurate and, you know, talking about there's thyme in this and there's 'I'm getting notes of' and being creative with this description. There's an interaction between [them]. And this is one of the things which I was when we started the company... If it was five years before, I think, it would have been harder to get that first recognition... but because there is an ecosystem of bloggers and, and people who are drinking and have to use words to describe something in this manner - that they appreciated this, and were able to describe it better than we were because we didn't really know. So that's kind of starting ... that interaction and the fact that people are now kind of saying that cider is unique and it tastes like this and there's all these kind of things. So this interaction is bringing it up. So I think it's a case of 'it's now is a good time for it to happen'. Yeah. I couldn't see people having an issue with it now.

RB: Okay. I'm thinking there 'issues'! No, that's good. Okay, that quite strong but what are the barriers?

Interviewee_7: Okay, to put it in a different way. Say, for example, I'm... what did I bottle recently? So I did... We did pommeau a couple of weeks ago. Our next bottling will be a special edition pommeau and an ice wine.

And, would I then, in my bottling process or in my pre bottling process, would [we] apply this to it? So when I blend, I typically would have a run-off of, maybe, a month where I'll take the different batches of stuff, of cider, or barrels of pommeau in this case. And, we'd have 10 or 12 barrels to blend from your [unclear] and we only have a couple of tanks and then we'll put in one barrel. And in that time when it's kind of, you know, taste them on one particular night and write down,

maybe, a couple of notes of which I prefer. But mainly on a collective 'oh, I like that one, that's a little sweeter or a little bit less'. Maybe having this tool, as part of it, I think would be something that I could do and would do. In some cases, mightn't have the time to necessarily kind of go 'right, I'm going to go through this systematically'. But like anything, once you do it a few times, you're gonna get quicker and so I think it's probably a case of doing it.

And I think, there's probably something in Cider Ireland that, like... It's coming up. It's been talked about, you know, like, the next time I'm talking to some of the lads, I'd be kind of saying 'it might make sense there this year for all of us to actually do a sheet'. And, you know, maybe if there's a version of the sheets, stick a few columns on it so people can take them down and print them out and say 'alright, what did your cider have?'. It's just something informally to do, maybe. And see, does it work? And effectively, is it an effective use of someone's time or half an hour of their time? It should be because, I know, when I get into the label stage, I have to sit down and do it 'cos I want those three or four words, peeled off the back of the page. So...

RB: Plus, it's an education to the retailer's.

Interviewee_7: Yeah.

RB: Not the end public who read the label but for the retailers. If they can repeat back, you know, the complexity and the reasons for it. You know, they're now selling, as Gabe would call it, the high value product, the HVP. They're doing that for you. It's just trying to supply them with 'this is the way to do it'.

Interviewee_7: Yeah. And actually now, I've something to do for this special edition pommeau. They want to do a two-pager for the sales team on the product and it's going back to the fruits and the science and so on. But given the timing of this, what I'll do is ... actually I've got an idea of what I'll do... I'll give you a taste of the pommeau that I'm going to put out. Right? And we won't be bottling for a while so there's no panic. So, I'll get some over the weekend, I'll send you a bottle of that, inside with another couple of other bits and pieces. And I'll do a version of this, based on my tasting. Yeah. And if you could do a version of this based on your testing, and we'll just see how it functions this works.

RB: I'll go slightly better for you. Okay, because I'm sort of, sort of... Liam was thinking about this type of concept as well. Okay. And rather than to be a single independent person, you know, who would be doing it, let me do it with somebody, the same bottles or whatever, but I'll do the tasting with somebody who's also qualified, with the WSET. So, you will get two sort of opinions which we balance out. So it won't be just... If I go with askew, it ruins it whereas if there two of us are. Alright? Does that make sense?

Interviewee_7: Yeah. Yeah no. That's good. I mean, there's a couple of aspects of this. One is the cider-makers using it. The other is, is that cider-makers perception of this the same as yours? I'd almost say is, you know, if there's a third person who isn't trained, it's probably worth having them having it because doesn't translate? Maybe it doesn't need to. If I read something that has, you know, honeysuckle, and I'm not gonna to know petrichor. But, you know, honeysuckle, lemon, lime and apricot - 'Oh, that sounds lovely' but ...

RB: That's the next step. What you're talking about is the next step.

Interviewee_7: Yeah, hummm. But yeah, look, I think that will be interesting to see how long it would take me to do it. Does it fit in and would you find the similar notes? Because, I know, I've worked with other sommeliers on some of the other batches and with Katherine from Aimsir and some of the lads down here, and it's always been helpful. She's been good to point out certain aspects that I mightn't have seen or done things. Like when I sent her up some of the wild apple cuveé, some stuff that I had disgorged last year and hadn't put up on twitter... She had done things like - left it in the glass for a while, and, or, left some of the bottle to come back the next day, just to try and kind of find different notes, at different times, at different temperatures. So these are the techniques that you guys would probably be familiar with. That might be good.

RB: I was saying to Liam. Obviously my thesis is focusing on the barrier, the potential barriers or the barriers... But even outside of that, I think, there's.... I'd love to help Cider Ireland as much as I could, you know, so if it is a case of doing some tastings, with the systematic, I'll be all on for that.

Interviewee_7: Yeah, cool. That would be good. Good to hear the feedback. So, that's nice. It's good to see that this could be something that we could be used. You know, it does seem to be refined towards cider, in a good way. Most what's there I kind of agree or have tasted. Hopefully some of the other bits and pieces would be helpful.

RB: Yeah. I'll add those in!

Interviewee_7: And let's see what goes on. So, do I have your address to send stuff up to ?

[Interview brought to completion.]